Bovine Viral Diarrhoea (BVD)

Consultation on Phase 5 of the Eradication Scheme

Analysis of responses to the public consultation exercise



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Introduction

The Scottish Government consulted publically to seek feedback on the next stage of the Scottish Bovine Viral Diarrhoea (BVD) eradication scheme. The feedback from the consultation will shape the next phase of the eradication scheme. The scheme will continue to encourage farmers to eliminate BVD from their own herds, and to protect those herds that are already BVD negative.

Background to the Scottish BVD eradication scheme

The Scottish Government, together with industry, veterinary practitioners and scientific partners, is committed to eradicating BVD from Scotland. We have been working together through the BVD Advisory Group with the ambition of eradicating BVD efficiently, in a way that suits the distinctive nature of Scottish farming.

Since the introduction of Scotland's BVD eradication scheme, we have seen the level of BVD exposure drop from 40% to 10% of breeding herds. This progress has been achieved during the first four phases of the scheme. The reduction in BVD exposure is due to great efforts on the part of cattle keepers and their vets to test the Scottish breeding herd to identify and then remove sources of BVD infection, supported by industry partners and backed by Scottish Government legislation.

To advance the scheme towards a satisfactory conclusion, the BVD Advisory Group agreed that there should be further restrictions on "not negative" herds to reduce disease spread within the Scottish national herd. These further restrictions were focused on keepers who choose to retain Persistently Infected (PI) animals or do not investigate the cause of their "not negative" status. The suggested restrictions were distilled into eight proposals, which were set out in the BVD consultation.

Consultation responses

The consultation opened on 21 August 2017 and closed on 6 November 2017. 70 responses were received from organisations and individuals. **Figure 1** shows a breakdown of the number of responses received by respondent type. A full list of respondents is in **Annex A**.

Type of respondent	ondent Number	
By organisation:		
Industry representative bodies	11	
Local Authorities	6	
Private businesses	5	
Private Veterinary Surgeons	24	
Total responding from organisations	46	
Total responding as individuals	24	
Grand total	70	

Figure 1: Respondents by type

Responses to the consultation were encouraged via Citizen Space, an online portal, which nearly all respondents used. A few respondents submitted their responses by email or in hard copy. All responses were combined onto one Excel spread sheet in order to undertake the analysis.

Where the respondent gave permission to publish, their original response can be found on the Scottish Government's website at:

https://consult.gov.scot/animal-health-and-welfare/the-bovine-viral-diarrhoeascotland-order-2018/consultation/published_select_respondent

Analysis of responses

The analysis of the responses is presented in the same order as the eight proposals listed in the consultation document. The consultation posed 29 questions, most containing yes/no questions with the option to add comments into a free text box.

The analysis is based on the views of those who responded to the consultation and is not necessarily representative of the wider population.

Proposal 1 – Testing requirement for "not negative" breeding herds

Under the current BVD Order, keepers of breeding cattle herds must screen their herd annually for BVD in order to obtain a BVD herd status. If the status is "not negative", animals cannot be moved out of the herd unless they have an individual negative BVD status, they are going direct to slaughter or (under exceptional circumstances) they are licensed to move. Currently, there is no legal requirement to investigate the cause of the "not negative" herd status, although the official guidance advises farmers to do so.

To increase pressure on herds with a "not negative" BVD status, we consulted on a new testing requirement that would force cattle keepers to investigate the extent of BVD exposure in their herd and to identify the source of infection, if present.

This new testing requirement would apply to all "not negative" herds that have had a "not negative" BVD status for at least 13 months. In these herds, the cattle keeper must determine an individual status for each animal. For many herds, this "sweeper test" would require only partial testing of the herd as some animals will already have an assumed status or individual status due to previous testing in the herd: animals that already have a status will not need to be re-tested.

Question 1: Do you think that keepers of breeding herds that have recurring annual "not negative" BVD statuses should investigate the cause of BVD virus exposure in their herd?

Respondents overwhelmingly agreed with requiring "not negative" herds to investigate their BVD status: 93% answered yes, with comments such as "We will never get rid of this disease without investigating the source". There was strong support for an increase in testing for herds that have been BVD "not negative" for 13 months or longer. Another typical comment was "farmers have had more than enough time to voluntarily investigate BVD so I feel it is time to take a stronger stance".





Question 2: Should there be exemptions to the "sweeper test" where farms have a breeding herd but also buy stores for further fattening or finishing? If so, how would this work in practice?

Respondents focused on the suggestion that the breeding herd should be tested while any store animals might be exempt from testing. Opinion was divided, with 67% saying that there should be no exemptions to testing in "not negative" herds and 19% saying that exemptions should be permitted. Those respondents who said "no" to exemptions pointed out the inherent biosecurity challenge in maintaining separation between fattening and breeding enterprises on the same premises, and therefore the necessity to test all the cattle. Some respondents who said "yes" to the exemption highlighted the additional cost for keepers with a large stores enterprise. Respondents in all groups emphasised the importance of sourcing cattle responsibly, and that cattle born on negative holdings should be regarded as low risk and therefore be exempt from the sweeper test.

Figure 3: Should there be exemptions to the "sweeper test" where farms have a breeding herd but also buy stores for further fattening or finishing?



Question 3: How long should affected herds be given to complete the "sweeper test"?

66% of respondents said that the test should be completed as soon as possible or within 3 months. 14% of respondents said that keepers should be given up to 6 months, 7% said up to 12 months should be allowed. 7% of respondents pointed out that the cattle keepers' ability to comply with the testing deadline would depend on the time of year: handling beef cattle is much easier in the winter, assuming that the cattle are housed.



Figure 4: How long should affected herds be given to complete the "sweeper test"?

Question 4: To take account of "Trojan cows" (which appear healthy but are carrying a PI calf) should the "sweeper test" include calf screening for 12 months following completion of individual testing?

89% of respondents agreed that the "sweeper test" should include a 12 month period of calf screening. A typical comment was "I have seen breakdowns due to omitting to test these animals". 3% disagreed.

Figure 5: Should the "sweeper test" include calf screening for 12 months following individual testing?



Proposal 2 – Restricting cattle in "BVD positive" herds

PIs are known to be the main source of BVD infection, excreting large volumes of virus from the moment of birth until death. For this reason, at this stage of the Scottish BVD eradication scheme, BVD control is centred on the identification of PI animals and the removal of these cattle from the herd.

In April 2017 we introduced a new BVD "positive" status to highlight herds that pose a higher BVD risk for those purchasing or moving cattle. This "positive" status only applies to holdings where there is a known virus positive animal in the herd. Once the virus positive animal has been removed from the holding, or re-tested with a negative result, allowing the presence of virus to be ruled out, the BVD herd status reverts to "not negative". Prompt removal of PIs reduces the level of on-going and new infections.

To increase pressure on "positive" herds to remove their PI(s) promptly we sought views on the following two proposals:

- Preventing spread of BVD to brought-in animals by preventing "positive" herds from purchasing, or otherwise bringing in, animals. This prohibition would be in addition to the restrictions already in place for "not negative" herds for animals moving off the holding. Restrictions on bringing in animals would remain in place until the herd has achieved a "not negative" status by removing all known virus positive animals, or re-testing them with a negative result. The options for removal are to kill on farm or send direct to slaughter. If adopted, this measure would need to allow a reasonable time period for resampling of suspect animals to determine whether they are PIs or only transiently infected with BVD.
- Reducing infection risk within the herd and to neighbours by adding a new **requirement to isolate virus positive animals**. As soon as a PI is suspected (first positive antigen result received, or calf born from a virus positive dam) the animal must be isolated from the rest of the herd, e.g. by housing in a separate airspace from cattle that are not virus positive.

Question 5: Do you think that holdings that contain one or more live Pls should not be allowed to move cattle on to that holding?

61% of respondents supported the proposal to stop the movement of cattle onto a holding that contains one or more virus positive animals. 29% of respondents did not support the proposal, with another 7% not sure either way.

Figure 6: Do you agree that holdings with one or more live PIs should not be allowed to move cattle to that holding?



This question asked whether moves on to a holding with a live virus positive animal should be permitted, and if so, should these moves be limited to cattle with an individual virus negative status that have been BVD vaccinated by a vet. Respondents were asked to give a reasonable time frame to allow a suspect PI/PI animal(s) to be resampled or removed from the holding before restrictions on purchasing animals are imposed. 86% of respondents explained their answer by providing comments.

Views on the movement of animals onto a holding with one or more live virus positive animals were mixed. 27% of respondents indicated that moves onto this type of holding should not be allowed. It was generally agreed that such a restriction would increase the economic pressure to eliminate PIs. 16% of respondents supported the exemption to allow vaccinated, BVD negative animals to move onto BVD positive holdings. One respondent thought that there should be an exemption for the purchase of bought-in store cattle destined for slaughter. Several respondents were concerned that restricting movements and monitoring exemptions would be difficult to enforce in practice. 9% of respondents did not agree with restricting cattle movements on to a holding with a live PI. They pointed out that adopting this proposal could have a severe impact on business, with one respondent highlighting that some farm operations depend upon a constant turnover of stock. Several respondents thought that movements onto a holding with a live PI would be at the farmers own risk.

40% of respondents submitted their views on a reasonable time frame for resampling and/or removal of virus positive animals from a herd. The results are shown in **Figure 7**.



Figure 7: Responses to time frame for resampling and removal of virus positive animals from herd

Question 6: Do you think that all virus positive cattle should be housed separately from animals with an unknown or negative BVD status?

73% of respondents supported the proposal to house virus positive animals separately from those with an unknown or negative BVD status. 1% did not support this proposal and 6% were unsure.

Figure 8: Do you agree that all virus positive cattle should be housed separately from animals with an unknown or negative BVD status?



84% of respondents provided comments to explain their decision. Among those who supported the proposal, there was a strong consensus that housing virus positive animals separately from other animals would reduce spread of infection. Several respondents thought that it would be beneficial to the eradication scheme by encouraging early removal of PI animals from the herd. Respondents who disagreed with the proposal commented that it would not be practical for a lot of herds as many farms do not have isolation facilities. Common feedback from those that disagreed showed they were in favour of prompt removal of PIs from the herd, some suggesting compulsory slaughter, rather than allowing PIs to be retained on farm, housed or otherwise. Both those in favour and those against the proposal pointed out that it would be difficult to enforce the housing requirement for PI animals.

Question 7: If virus positive animals must be housed, would inspection of these premises improve compliance?

Just over half of the respondents, 53%, agreed that inspection of premises that house a virus positive animal would improve compliance. 23% of respondents did not agree and 21% were unsure that inspection would improve compliance.





There was strong agreement from the respondents who supported this proposal, saying inspections would have to be regular and random to ensure compliance where farmers are housing virus positive animals. One respondent suggested that guidance should be provided outlining the minimum requirements for suitable housing. Several respondents indicated that inspections would be essential to ensure that housing provided an appropriate level of biosecurity and alleviated

animal welfare concerns. One respondent suggested that inspections would also be a good opportunity to discuss the farmer's BVD eradication strategy.

Almost of a third of those who did not agree that inspection would improve compliance wanted to see these animals culled as soon as possible, rather than kept in isolation. Others did not agree as they felt the inspections themselves would be impractical and difficult to enforce. 3% of respondents suggested that the inspection was only representative of the day of the visit and would not guarantee continued compliance.

Question 8: If virus positive animals must be housed, how could we prevent inadvertent spread of BVD virus to other cattle via clothing / footwear / equipment?

94% of respondents commented on this question.

The most common response was for keepers to implement a robust biosecurity plan on their farm. This was supported by 24% of respondents but many admitted that keeping a PI on the farm would always be a disease risk. One respondent suggested that risk could be reduced by having a greater emphasis on biosecurity via cattle health plans, veterinary visits and QMS inspections all working together. Another suggested a health plan could be prepared to allow each producer to confirm how the spread of disease will be prevented. Along with a robust biosecurity plan, 13% of respondents supported a requirement to use dedicated equipment, including separate clothing, when handling virus positive animals.

There was a general consensus that preventing inadvertent spread of BVD virus would be difficult to achieve in practice. 21% of respondents provided comments to explain their concerns, which focused on farmer attitude to biosecurity and ability to implement effective biosecurity measures, and the lack of suitable equipment and buildings to house and handle animals safely. One respondent commented that advice on biosecurity, footbaths, separate clothing and handling is often acknowledged by farmers but not implemented. 3% of respondents supported the use of vaccination to protect the herd while 13% pointed out that culling the PIs as soon as possible (i.e. not housing them) was the most effective way to avoid further risk.

There was a general acknowledgement of the risk of inadvertent spread of BVD virus, and support for biosecurity training for farmers. This was backed by 10% of respondents, suggestions ranged from training and advice from the private veterinary surgeon to "knowledge exchange" materials being provided to farmers. One respondent suggested that a consultation should be carried out with a veterinary surgeon, alongside easily accessible and digestible information on biosecurity being disseminated through the main livestock and farming bodies in Scotland.

Proposal 3 – Use of primary/secondary tags for tissue tag sampling

Where cattle keepers use tissue tagging to ascertain an animal's individual BVD status, the use of the primary/secondary cattle identification tag for sampling is considered to be best practice. Use of the primary/secondary tag ensures that calves are sampled early in life, thus allowing early PI identification and removal. Cattle also benefit from better welfare due to fewer tags in ears. Use of primary/secondary tags, or management tags carrying the official identification number, also reduces transcription errors on the submission form and at the testing laboratories.

We sought views on the proposal to allow only primary/secondary tags for all tissue sampling, including animals born on a non-breeding holding. This proposal would mean that tissue tagging would be restricted to calves of up to 28 days old, and that older animals would have to be individually tested by blood sample. Provision would need to be made for samples that have provided insufficient material for testing or given inconclusive results, or other failures due to factors beyond the keeper's control.

Question 9(a): Do you think that all tissue tag sampling should be carried out using only a primary/secondary tag?

59% of respondents thought that all tissue tagging should be done using a primary/secondary ("official ID") tag, 27% thought not. Reduction in transcription errors and early detection of BVD positive calves were identified as important benefits. However, there were 17 comments (24% of respondents, including some "yes" and "don't know") pointing out that management tags are very useful addition to the farmer's testing options.

Figure 10: Do you agree that all tissue tag sampling should be carried out using an official tag?



Question 9(b): If not, do you agree that "not negative" herds are restricted to only using primary/secondary tags?

The 61% of respondents who answered this question generally reiterated their comments to 9(a). Some noted that limiting the testing options dependent upon herd status could be counter-productive, due to increased complexity for both cattle keepers and enforcement agencies.

Figure 11: Do you agree that "not negative" herds are restricted to only using primary/secondary tags for tissue sampling?



Question 10: The proposed restrictions to tissue tag sampling would limit tag testing to calves in the first 28 days of life. If keepers wish to test older animals, should they be permitted to use management tags for this purpose?

Respondents were fairly evenly split on this question: 50% said that management tags should be available for sampling older animals, 40% said that they should not be used. Respondents who agreed with management tag use placed a lot of value on allowing the farmers to use management tags for older cattle, citing the advantages of cost savings and convenience over the alternative of blood sampling by a vet. 21% of respondents felt that use of management tags led to transcription errors and in some cases fraud. One of those who disagreed with the use of management tags for older animals highlighted the value of veterinary involvement during BVD breakdowns.





Question 11: Would you agree that management tags used for BVD sampling must be printed with the animal's official identification number?

66% of respondents agreed that management tags should be printed with the official ID number, 23% disagreed. Several respondents pointed out that using the full official ID number on a management tag would result in illegal tagging. This could be solved by omitting "UK" from the ID number. 16% of respondents thought that use of the official ID number would improve identification and reduce fraud, 18% thought that it would reduce transcription errors. A typical comment was "this would help with avoiding identification errors which will ensure the correct identification of PI animals". However, 16% thought that there would be no advantage, and 14% respondents highlighted disadvantages, such as delays due to ordering specially printed tags and the inconvenience of matching tags to animals. One respondent said "it would increase time and effort and pre planning on the farmers behalf, which may lower the uptake of the tags"; another pointed out, "More complicated system and makes management tags more difficult to read for farmers and staff."

Figure 13: Should management tags used for BVD sampling be printed with the animal's official identification number?



Question 12: Where the tissue tag has failed to produce a sample that is suitable for BVD testing, should management tags be allowed for re-testing or should the animal be resampled by the private veterinary surgeon?

The yes/no answers for question 12 were ambiguous due to poor drafting, however most respondents clarified their answers with comments.

Analysis of the comments showed that 31% of respondents said that tags should be allowed for resampling, 39% said that resampling should only be done by the vet. From the available information, those respondents who said re-testing should be done by the vet were a mixture of all respondents (i.e. not just the vets). Among the reasons for continuing to allow re-test by tagging was to reduce delay in re-sampling (3% of respondents) "delay is the enemy in disease control", and to avoid penalising farmers for tag failures (4%). 3% of respondents said that farmers could be trusted to resample animals with tags when the previous tag has failed. Reasons for requiring a veterinary sample were the benefits of veterinary advice (3%) and the welfare aspect of preventing repeated ear tag application to one animal (7%). NB the BVD (Scotland) Order already restricts use of management tags for sampling to a single application, thus the maximum number of BVD tags that can legally be applied to a bovine is two (one primary/secondary tag and one management tag).

Question 13: Where a virus positive animal is re-tested to establish whether it is a PI or only transiently infected, should the re-test sample be limited to a blood sample taken by the vet or is it acceptable for the keeper to re-sample using a management tag?

As with question 12, the yes/no answers to question 13 were ambiguous due to poor drafting. Fortunately, most provided comments and 76% of respondents were in favour of restricting confirmatory testing of PIs to tests carried out by the vet. A typical response was "Reduces risk of error and gives an opportunity for more advice". The reasons given were the benefit of veterinary advice (7% of respondents), the prevention of fraud (20%) and the reduction in errors (14%). 10% of respondents said that tags should continue to be permitted for confirming a PI, with one (1%) providing an explanation (cost saving). One of the pro-blood testing respondents also highlighted concerns about imposing costs on cattle keepers: "We would consider that follow-up blood sampling by a vet the ideal approach to ensure correct traceability. We do accept that this adds extra cost to the producer however".

Proposal 4 – Amendment to improve effectiveness of the check test

When implemented correctly, BVD check testing is acknowledged as being an extremely sensitive and reliable indicator of BVD exposure in the herd. However, effective check testing relies on the selection of representative cattle for antibody testing.

In the current BVD Order, the standard check test requires sampling of 5 animals per management group. A "management group" is defined as animals that have been housed or grazed together for at least the past two months. Thus larger herds would be expected to have several different "management groups" and therefore would need to check test multiple sets of 5 animals. However, some larger herds are check tested using 5 animals only. This approach runs the risk of missing BVD exposure through being unrepresentative of the herd, and therefore giving a herd a BVD negative status when, in fact, there is a disease risk.

We sought views on amending the current check test. One possibility was to increase the number of samples submitted for a check test to a number equivalent to at least 10% of the number of calves born on that holding in the past 12 months, in addition to meeting the requirement for sampling 5 animals from each management group (10 animals in the case of the dairy check test).

Question 14(a): Do you think that the check test should be amended to make it more effective?

73% of respondents agreed with the proposal to amend the check test to make it more effective, while 17% disagreed and 9% were unsure if the check test should be amended.





89% of respondents provided comments on this proposal. Those that agreed with the proposal thought that an increase to testing a number of eligible animals equivalent to at least 10% of the number of calves born in 12 months would be reasonable and could encourage farmers to be more conscientious about identifying all management groups which have been together for at least 2 months. One respondent pointed out that it could result in a more thorough check test but we need to be aware it could cause a backlash from increased costs due to additional testing. Several respondents also felt that increasing the number of animals to be tested might help in situations where it is difficult for a vet to be sure of the number of management groups on the farm and of how long the eligible cattle have been kept together.

Respondents emphasised that more should be done to educate farmers and vets on the significance of the group size in providing a reliable epidemiological survey. This view was echoed by several respondents who felt the current check test was fit for purpose. They stressed that the critical point is to test each management group; if the disease is present in the herd, sampling 5 animals from each management group will find it.

A number of respondents felt that farmers should only be allowed to tissue tag all calves at birth, removing the option to set a herds status via the check test.

The respondents who were undecided about amending the check test were of the opinion that more scientific evidence was needed to justify this proposal. They felt that more emphasis should be placed on implementing the existing check test correctly in order to determine the herd status accurately. Respondents pointed out the need for training and knowledge exchange to achieve this.

Question 14(b): Do you think that increasing the minimum number of samples taken at a check test would result in a more robust test?

Around two thirds of respondents, (67%), agreed that increasing the minimum number of samples at a check test would make it a more robust test. 17% of respondents disagreed and 13% were unsure.

Figure 15: Do you agree that increasing the number of samples taken at a check test would result in a more robust test?



64% of respondents gave an explanation to their answer for this question.

The majority of those who agreed with the proposal to increase the minimum number of check test samples thought that this approach would be more likely to find antibody positive animals and would reduce the risk of management groups being ignored or missed. However, one respondent pointed out that increasing the minimum number of samples will reduce the test specificity, i.e. will increase the number of false positives, and would therefore give disadvantages as well as benefits. Another respondent commented that any increase in sample size must be balanced against the cost benefit to the scheme and the potential reduction in compliance of the farming community.

Those that disagreed with the proposal or were unsure generally agreed that the current check test works well. As with the previous question, most respondents were keen to point out that it is more important that every management group be tested properly than to increase the statutory minimum number of samples.

Proposal 5 – Faster reporting of test results to the ScotEID database

The current BVD Order allows 40 days from date of testing for BVD results to be reported on the ScotEID database. The approved BVD laboratories have become more efficient at processing samples and uploading results since the start of the scheme. The laboratories have stated that 40 days for reporting results is now recognised as excessive; test reporting can normally be done in a much shorter time.

In the consultation we sought views on reducing the BVD test result reporting time to 5 working days.

Question 15: Do you think that the timescale for a BVD approved laboratory to report the result of a sample be reduced to 5 working days?

There was strong support for this proposal, with 87% of respondents agreeing that BVD results should be reported within 5 working days. Of those that disagreed or didn't know, 7% of respondents felt that the timeframe was too prescriptive and 6% were concerned about an increase in laboratory errors. One respondent pointed out the necessity to allow for the extra time needed if a sample requires re-testing for any reason.

Figure 16: Do you think that the timescale for a BVD approved laboratory to report the result of a sample be reduced to 5 working days?



Proposal 6 – Notification of herds from which PIs originate

PIs are born infected with BVD, being the calf of a PI dam or a dam that was transiently infected with BVD during pregnancy. Studies show that PIs are born when their mothers are infected in the interval between 18 and 120 days of pregnancy. Thus, a PI can only be born if there was a PI in the herd, or the pregnant female was otherwise exposed to BVD, during the risk period of the pregnancy.

Where a PI is identified on a holding other than the holding of birth or the holding(s) where the risk period of pregnancy took place, restrictions are currently only placed on the holding of residence, even though the holding(s) of pregnancy risk period may have had a BVD risk at the time the PI was developing *in utero*, and the holding of birth (if different) will have experienced BVD exposure when the PI calf was born. Depending on the testing being carried out, BVD infection on the holding(s) of pregnancy risk period and birth may not have been recognised, posing an on-going risk to those herd(s) and potentially to cattle on neighbouring farms.

We consulted on adding a new requirement that will track PIs back to their herd(s) of pregnancy risk period and birth. We asked: regardless of where and when a confirmed PI is identified, should the holding(s) where the dam was resident during days 18-120 of pregnancy be recognised as BVD "not negative"? And should the same apply to the holding of birth (if different)?

Question 16: Should the holding where the dam was resident on days 18-120 of pregnancy and the holding of birth be automatically given a "not negative" status as soon as the PI is identified? If so, what would we need to consider in order to avoid penalising holdings that have already carried out BVD investigations?

69% of respondents agreed with the proposal to change the status of a holding to "not negative" where a PI has originated. 17% of respondents did not agree with the proposal and 11% respondents were unsure if the status should change to "not negative".





Respondents who agreed with this proposal thought it was a sensible decision to take as the source of the infection should be investigated. Where an investigation had already been carried out on the farm of pregnancy, there was strong support for not taking further action. Respondents agreed that the holding of birth should be able to avoid the "not negative" status if a full investigation had been carried out since the movement of the PI from the holding. One respondent suggested that it

should be possible to lift the "not negative" status almost immediately where a vet confirms that a full investigation has been carried out, because there should be evidence of it on the ScotEID database.

A more cautious approach was advised by some respondents who advised that the source of infection may not have come from the holding of pregnancy. An in-calf female can be infected during transport or when moving through a mart. 19% of respondents pointed out the complexity of imposing and administering the proposed restrictions accurately and fairly on the holding(s) of pregnancy.

9% of respondents thought that imposing the proposed restrictions on the herd of pregnancy would be unfair. Some respondents who disagreed with the proposal suggested alternative solutions, rather than placing automatic restrictions without first considering the individual circumstances of the herd. One suggested that a notification could go to the holding and the holding's private veterinary surgeon, which should trigger an immediate investigation on the holding without changing the status straight away.

Question 17(a): When tracking a PI back to their herd of birth, should this be restricted to confirmed PIs (i.e. those that have had a second positive antigen result at least 3 weeks after the first sample)?

70% of respondents supported the proposal that only confirmed PIs should be tracked back to their herd of birth. 23% did not agree and 3% were unsure.

Figure 18: When tracking a PI back to their herd of birth, should this be restricted to confirmed PIs?



The respondents who agreed with this proposal recognised that restrictions based on transient BVD infection would be meaningless and unfair. They thought it would therefore be essential to confirm PI status. Those who gave feedback on the timescale for imposing restrictions on the herd of pregnancy felt that 3-6 weeks should be granted to the keeper of the suspect PI (virus positive animal) before imposing restrictions on the herd of pregnancy. The period of 3-6 weeks would allow confirmatory testing to take place. However, if confirmatory test results were not received within the set time frame, then restrictions on the herd of pregnancy could be triggered.

23% of respondents supported changing the status of the herd of pregnancy to "not negative" on the first antigen positive result. A further 4% supported changing the status to "not negative" for animals that died (or were killed) before a confirmatory retest could take place. These respondents felt that the lowest risk option would be to act on the initial positive test. Some respondents pointed out that the status would

change to "not negative" on suspicion and BVD "negative" if the re-test shows that the animal is not a PI.

Question 17(b): If so, it may result in less confirmatory testing: are you concerned about this?

Views on this proposal were mixed. 31% of respondents were concerned that there might be less confirmatory testing, 36% were not concerned and 20% were not sure.

Figure 19: If tracking a PI back to their herd of birth is restricted to confirmed PIs, are you concerned about less confirmatory testing?



64% respondents provided comments on this question.

Amongst those that were concerned, 14% of respondents felt confirmatory testing should be mandatory due to the potential implications for other herds. One respondent raised a concern that waiting for confirmatory testing would introduce delays, and suggested that a rigid time scale would need to be put in place for a mandatory secondary test. In the absence of a confirmatory test, a number of respondents thought that the animal should be considered a PI, with restrictions imposed on the herd(s) of pregnancy.

Responses from those who were not concerned about lack of confirmatory testing centred on trusting the keeper to "do the right thing" by re-testing and/or removing suspect PIs from their herd. One respondent pointed out the advantage to keepers of a negative confirmatory test is that it will change their herd status from BVD "positive" to "negative", therefore keepers would not be deterred from carrying out confirmatory testing. Another respondent felt that it was better to encourage early removal of PIs.

One respondent who was not concerned about lack of confirmatory testing said that the scheme should concentrate on the prompt removal of PIs from the herd. Other "unconcerned" comments (7% of respondents) pointed out the onerous nature of the proposed restrictions, both for the herd of pregnancy, and for enforcement agencies. One stated "It is unlikely that the lack of backward tracing to date has been a substantial problem therefore we should avoid substantially increasing the burden on herds".

Question 18: When tracking a PI back to their herd of birth, would this be better handled as an advisory matter e.g. by sending a letter to the holding(s) concerned. Possibly copied to their vet?

50% of respondents agreed that tracking a PI back to their herd of birth would be better handled as an advisory matter. 36% did not agree and 11% were unsure if this was the best way to manage the process.

Figure 20: When tracking a PI back to their herd of birth, would this be better handled as an advisory matter?



Respondents who agreed with an advisory approach generally thought that it would be fairer as the holding of birth may have already carried out an investigation. Respondents who commented placed considerable emphasis on using "tracking back" in a proportionate way, given potential uncertainty over the location where infection occurred and the possibility that the herd(s) of pregnancy had undertaken BVD testing and investigation since the BVD animal moved off the farm. There was significant support (27% of respondents) to include the private veterinary surgeon in any advisory correspondence sent to the farmer.

Concerns raised by respondents who did not support this proposal varied. There was concern that advisory letters have little effect and would be ignored by the recipients. Some respondents were keen to make PI tracing mandatory and not treat it as an advisory matter, in order to demonstrate that we are committed to eradicating BVD from Scotland. Respondents were also keen to ensure that there was some follow up action on the herd of birth and wanted mandatory investigation of the source of the BVD infection.

Proposal 7 – Post-sample movement restrictions

Cattle keepers can find themselves in the position of having inadvertently moved their animals illegally when they have not realised that the herd status has changed from BVD "negative" to "not negative" following a check test.

Ideally cattle keepers should look up their herd status on the ScotEID BVD database before they move cattle without individual status to another holding or the market. Access to the ScotEID database is free of charge and users can look up herd status without logging-on to the system.

To prevent the dispersal of animals immediately after a change of herd status, we sought views on restricting herds where a cattle keeper has submitted samples and is waiting for the results of the check test. This would mean that the movement of any animals off the holding that do not have an individual BVD status would have to be delayed until the negative result is uploaded to ScotEID.

Question 19: Do you agree with the proposal to restrict the movement of untested animals off a holding until the results of the annual beef check test have been received?

60% of respondents agreed that restrictions should be imposed until check test results were received, 21% disagreed. Of those who agreed, 6% of respondents mentioned the benefits of having animals available for re-tests if needed. 12% said that the restrictions should only be imposed if approved laboratories could guarantee to return results rapidly and 6% said that restrictions should be imposed on a riskbasis, depending on the herd's test history. Of those who disagreed, 9% pointed out that the scheme is based on an annual BVD herd status and movement should be permitted whilst the herd is BVD "negative". 6% drew attention to the difficulties in holding cattle pending results on those farms that rely on weaning, testing and moving calves off in a very short time period (particularly applicable to small herds). Some respondents commented on the danger of damaging the vet-client relationship due to delays in selling stock, also the potential problem of deterring testing until after young cattle have been sold for the season - making check testing less accurate in the long term (see next question). One respondent emphasised the dangers of discouraging check testing "[by] making check tests even more awkward there will be more movement to tagging and transient infections will continue to be missed."; another highlighted the importance of maintaining farmer engagement with the BVD eradication scheme: "It might undermine approval in the fairness and logic of the scheme if farmers who believe they are adhering to the scheme and are doing everything "right" are unable to sell at certain times of year".





Question 20: Could imposition of movement restrictions encourage cattle keepers to delay their annual check test until after young stock sales, with possible loss of eligible age animals?

66% of respondents thought that delaying the annual check test would be a foreseeable risk of introducing restrictions pending results. 16% of respondents thought that movement restrictions would not cause farmers to delay their check testing. Of those respondents who agreed that restrictions might cause farmers to delay their test, one pointed out the risk of poorer quality check test information: "Some valuable information about the herd BVD exposure might be lost because of farmers strategically timing the annual check test to avoid movement restrictions impacting on their business". Another noted the importance of maintaining engagement with the scheme: "It is better to work with farmers than against them".

Figure 22: Could imposition of movement restrictions encourage cattle keepers to delay their annual check test until after young stock sales, with possible loss of eligible age animals?



Question 21: Should more use of ScotEID be encouraged, e.g. through guidance or at road shows rather than via legislation?

80% of respondents thought that ScotEID use should be encouraged, 7% said no. Comments were supportive of more training and support for cattle keepers to increase use of ScotEID.

Figure 23: Should more use of ScotEID be encouraged?



Question 22: Does this proposal unfairly penalise beef breeding herds that have had a negative status for several years?

Respondents were fairly evenly split on this question. 39% of respondents answered no, beef herds would not be penalised; 46% said yes. Of the respondents, 11% thought that farmers should be sufficiently organised to check test at a time that avoids the impact of restrictions, 13% felt that the penalty of restrictions pending results would be worth it for the benefits to the scheme, with one respondent pointing out "Any herd's status can change". 4% observed that the penalty would be minimised by rapid reporting of test results. 4% suggested that restrictions should be imposed on a risk-basis (e.g. a herd that had been negative for 2 years should not be restricted pending receipt of test results). 9% felt that the proposal would penalise compliant farmers, and one commented on the impact on farmer engagement: "It is important not to penalise BVD negative herds by adding extra restrictions on movements or they will become disillusioned with the scheme".



Figure 24: Does this proposal unfairly penalise beef breeding herds that have had a negative status for several years?

Proposal 8 – Increased pressure on BVD "positive" herds and protection of neighbours

Retaining PIs keeps the source of BVD virus on the farm and risks continuing infection of the herd, with the creation of new generations of PIs. In addition, PIs can put neighbours at risk of infection through direct or indirect contact.

We consulted on a proposal to publish the location details of farms where one or more virus positive animals are retained. In order to ensure that the proposed measure is not a disincentive for taking action on PIs, publication would need to be delayed for a period after disclosure of a virus positive animal to give the keeper opportunity to re-test the animal and confirm it either as transiently-infected or a PI, and/or to remove it from the herd.

Question 23: Do you think that the Scottish Government should publish the location details of virus positive cattle?

72% of respondents were in favour of the Scottish Government publishing the location details of virus positive animals. 16% disagreed and 3% were unsure about this proposal.

Figure 25: Do you think that the Scottish Government should publish the location details of virus positive cattle?



Respondents who backed the proposal to publish the location details of virus positive animals thought that it would encourage farmers to remove PIs from their herd (20% of respondents) and would also help protect the status of neighbouring farms (30% of respondents). By publishing the location details of virus positive animals, 20% of respondents felt that peer pressure and pride in their herd could be significant drivers that may persuade farmers into action to get rid of PI animals. Some respondents suggested that keepers had a right to know if there were PI animals in the vicinity of their own cattle. One respondent pointed out that it is easier to relate to the real risk of a known BVD positive holding than to an unknown or theoretical risk and the PI information would allow farmers to take precautions to protect their herd.

7% of respondents pointed out that the location details of a PI can already be accessed on ScotEID. However, under current arrangements a user would need to know their neighbour's CPH number to search for herd status information on ScotEID. One respondent raised the point that any list must be kept up to date. Others (6% of respondents) pointed out the importance of making the information clear and accessible.

3% of respondents felt that publishing location details of PIs would be "a step too far" at this stage of the eradication scheme. 9% of respondents were adamant that there should be a requirement to cull PIs rather than allowing them to be retained on farm.

Of those who were unsure if the location of PIs should be published, one was concerned that it may cause conflict in small communities. Another respondent commented that it could adversely affect livestock prices in the area, which could impact unfairly on BVD "negative" herds.

Question 23(a): If you answered yes to question 23, how long should cattle keepers be given between first disclosure of a virus positive animal and publication of its locations?

There was no consensus on the length of "amnesty" given to a keeper of a BVD positive animal before publishing the location details. **Figure 26** summarises respondents' opinions on the delay prior to publication.



Figure 26: Opinion on time scale for publishing location of a virus positive animal

26% of respondents wanted to see publication either immediately or within a week of identification of a virus positive animal. 50% respondents supported in 4 weeks or less. 73% supported publication within 12 weeks of the first BVD positive result, to allow time to re-test to confirm or disprove the PI status of the animal, and for the results to be uploaded on ScotEID. One respondent felt that 24 weeks would allow sufficient time to either re-test or remove the animal from the herd. Of those who specified a time scale, many emphasised the importance of allowing time for a re-test, followed by removal if still BVD positive, before "naming and shaming". The underlying message was that allowing a short period of time would promote best practice amongst cattle keepers. 24% of respondents did not give a time scale.

Question 23(b): If you answered yes to question 21, what format would you like to see for publication of PI location?

Figure 27 shows the publication formats preferred by respondents. The question included some suggestions and many of the responses focused on these examples. The examples suggested in the question were a list of CPHs published on ScotEID, an interactive map and/or written notification to neighbours.



Figure 27: Opinion on publication format for location of PIs

Many of the respondents supported the publication of a PI location in several formats to reach as many interested parties as possible.

Most respondents agreed that written notification to neighbours was important as this group was at risk from "over the fence" contact with PIs, and should therefore be informed. They felt written notification would be the most effective in reaching at-risk neighbours. A couple of respondents added that written notification should also be extended to neighbours on shared holdings and away grazing. One respondent urged caution: written notification to neighbours should include advice on protecting their herd rather than being simply punitive.

Some respondents felt that an interactive map would allow farmers to identify areas that are high risk, which would be useful when considering new purchases. Another advantage identified was that an interactive map could further increase pressure on regions with multiple PIs. However, one comment highlighted the potential for a map to unfairly penalise BVD "negative" herds located in a high risk area.

Respondents recognised that a list of CPHs on ScotEID would be the most straight forward approach to take. One respondent thought that a list on ScotEID would allow keepers to check the location of PI animals while at the same time avoiding any inappropriate use of the information because ScotEID is only likely to be used by members of the cattle industry, not the wider public.

A number of respondents wanted a written notification to the farmer's private veterinary surgeon, while one respondent suggested that all local veterinary surgeons in the area are notified so they can proactively work with all cattle keepers in the locality to prevent the spread of BVD.

Consultation Feedback

After answering the questions, respondents were asked if they would like to provide feedback in order to help improve future consultations and this section outlines the findings from these responses.

Ū	Very satisfied	Slightly satisfied	Neither satisfied or dissatisfied	Slightly dissatisfied	Very dissatisfied	No reply
Industry representative bodies	5	1	1			7
Local Authorities	3		2			1
Private businesses	1	3	1			
Private Veterinary Surgeons	6	12	4	1		1
Individuals	2	6	4		1	
Farmers		5	2			1

Figure 29: How satisfied were you with this consultation?

Organisations responding to the consultation, some represented by more than one respondent

AHDB Dairy, Agriculture and Horticulture Development Board
Argyll and Bute Council
Boehringer Ingelheim
British Cattle Veterinary Association
British Veterinary Association
D.S. McGregor and Partners Veterinary Surgeons
East Ayrshire Council
Epidemiology Research Unit, SRUC (Scotland's Rural College)
Firm of A & A Taylor
Firm of S & M Mackenzie
Greenside Veterinary Practice
James Hutton Institute
Kincraigie Farms (Family Partnership)
Moray Council
National Farmers Union Scotland
Perth and Kinross Council
Quality Meat Scotland
Scottish Beef Association
The Institute of Auctioneers and Appraisers in Scotland
The Royal College of Pathologists
5 organisations – name withheld



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