

Simple tissue sample testing has helped to lift BVD 'depression'

# Tag test cuts calf losses

BVD eradication has not only improved calf health and herd fertility and productivity on one Cornwall-based unit, but it has also renewed optimism and boosted confidence in the future success of the family business.

text **Matt Mellor**

In fewer than 12 months dairying at Furslow Farm, near Callington in Cornwall, has been transformed for the Poad family. Feelings of despair have been replaced with a new level of optimism that none would have thought possible back in autumn 2013.

It is now known that Bovine Viral Diarrhoea (BVD) was the main cause of crippling calf mortality rates and, probably, also lay behind sub-optimal fertility in the milking herd and a depression in milking performance.

These were all problems that had built up during several years despite the best efforts of all those involved.

Changing the farm vet was the catalyst for a dramatic improvement, with Calweton Vets of Callington (members of the XLVets organisation) providing the required specialist knowledge and impetus to address the longstanding herd health issues.

"BVD was first suggested as a possible problem by our nutritionists Isobelle Delbridge and Dave Hinkins," recalls Steve Poad. "At around the same time

I heard Stuart Gough from Calweton speaking at a meeting and realised that we could benefit from the specialist knowledge that the practice was able to offer."

## Tissue testing

Initially all the cows were blood tested but, surprisingly, no BVD was found. It was only through subsequent tissue testing of the young stock that a number of possible PIs (persistently infected animals) were identified, several of which were then confirmed with a follow-up blood test.

"Having established BVD was circulating in the herd, our strategy has been to identify and cull all PIs, therefore allowing an effective vaccination programme to be put in place," says Mr Poad.

Eradication of BVD is part of a broader herd health improvement plan that Stuart Gough and assistant Sarah Caldwell have overseen at the unit since the practice first became involved in November 2013. Now, with fortnightly fertility visits creating the opportunity for frequent surveillance and consultation, the vets have become an integrated part of what is a concerted

*Bottom left: Ben Poad tags a new-born beef-cross calf with the BVD Check Tag*

*Centre: once the BVD Check Tag is attached, the tissue sample is contained in a sealed pre-numbered tube*

*Right: tissue test results arrive within a week and all calves testing negative are loaded onto a database, which is accessible via [www.bvdcheck.co.uk](http://www.bvdcheck.co.uk)*



team effort to turn the business around. The on-farm team includes Steve's son Ben who, with the able assistance of two younger sisters Rosie and Cassie, has responsibility for the calf rearing unit. Needless to say, with calf health the most obvious focal point of the farm's problems, he was feeling as much pressure as anyone when things were not going well.

### Calf losses

"It was a demoralising experience, because however hard we tried to do the job right we continued to see problems," he explains. "Young calves seemed so susceptible to scours or pneumonia and at their worst our losses were between 25 and 30%.

"We now know that PI calves were being born and would have easily spread BVD to other calves. When calves are infected with BVD they are more susceptible to other disease challenges, so this is why we were having so many problems.

"Now that we are on top of the BVD, the calves look so much better and we have reduced the losses right down to fewer than 5%. We were having a weekly trip to the kennels, but now we're going for entire months without any calf losses at all."

Part of the protocol going forward is to tissue test every calf at birth in order to maintain a check on BVD status in the herd. The special white BVD Check Tag ear tags – part of a national scheme being promoted by XLVets with support from

MSD Animal Health – take a tissue sample as they're attached and these samples are sent away in pre-addressed envelopes to NML for laboratory analysis. Results are sent back within a week to the farm and the farm vet, and all calves with a negative result (indicating that they are BVD-free) are entered onto a fully accessible database.

"First and foremost this process allows the unit to maintain a routine check that there is no BVD circulating in the herd," explains Stuart Gough. "However, it offers wider value as any calves sold are then identifiable as having been tested. This provides a form of reassurance for the buyer, who can check the calf's status on the database and download a certificate confirming that it has tested negative for BVD.

### Added protection

"In time we hope that the scheme will become widely known and accepted, with the white BVD Check Tag ear tags actually creating added value for the seller."

At Furslow Farm most calves, except black-and-white bull calves that go to the Poad's eldest daughter Isobelle for rearing, are kept. Nevertheless, the discipline of tissue testing is being maintained as a means of verifying that the herd is BVD-free. The cost is roughly double the £2 or £3 typically paid for a tag, but this is all-inclusive (postage, testing and results service) and is now an integral part of disease control in the herd.

Vaccination against BVD is now also carried out using the Bovilis BVD vaccine from MSD Animal Health. This vaccine is specifically licensed to protect the foetus from infection from its dam, across the placenta, so helping to prevent PIs being born. It is suitable for the active immunisation of cattle from eight months of age.

"In addition to ensuring that all adult cattle are vaccinated and have their routine booster, it is vital to ensure that breeding heifers begin their vaccination programme before they get in calf," adds Stuart Gough. "Timing of vaccination and the removal of PIs from the farm are two of the most important areas in BVD control."

In addition to the improvements in calf health, Steve Poad is pleased to confirm improvements in herd fertility – with fewer embryonic deaths and more cows holding to service. And total milk production per cow is increasing beyond the 9,000-litre average. Control of BVD is certainly a major factor, but so is an added level of motivation throughout a family team that is once again optimistic for the future.

Currently at 180 cows, the aim is to push herd numbers up to more than 200 in the near future, and a decision has just been taken to invest in three robotic milking units. That's a resounding vote of confidence and a clear signal that the Poads are intending to be in milk production for many more years to come. |



Customer: SW & Ma Poad  
 Address: Furslow Farm  
 Blunts  
 Saltash  
 Cornwall  
 PL12 5AS  
 Phone:  
 Email:

Total Pages: 2  
 Report Date: 24/04/2014  
 NMR Herd No.: 10/98810/01  
 Batch No.: 17031424LLM  
 Certificate No.: 17031424LLM014424163645  
 Location: Hillington  
 Authorised by: Derek Connolly, Senior Laboratory Technician

### NML HEALTHCHECK RESULTS

(Individual Cow samples)

Table 1: Results For The Detection Of BVDv Antigen in Individual Cow Ear Tissue.

Analysis Methodology: Detection of BVDv antigens using commercial ELISA test kit.

SAMPLE ID	SAMPLE DATE	BVDv-AG	
		S-N	Category
301289 V 34731	01/02/2014	0	Negative
1013337 V 34732	01/02/2014	0	Negative
401284 V 34733	01/02/2014	0	Negative
501285 V 34734	01/02/2014	0.01	Negative
501341 V 34735	01/02/2014	0.01	Negative
701238 V 34736	01/02/2014	0.03	Negative
501271 V 34737	01/02/2014	0	Negative
401312 V 34738	01/02/2014	0	Negative
301304 V 34739	01/02/2014	0.05	Negative
401305 V 34740	01/02/2014	0.04	Negative
701350 V 34881	01/02/2014	0	Negative
101288 V 34882	01/02/2014	0.01	Negative
101274 V 34883	01/02/2014	0	Negative
701266 V 34884	01/02/2014	0.02	Negative
201289 V 34885	01/02/2014	0	Negative

**Comments:**  
 † Indicates the tests are within the NML scope of UKAS accreditation.  
 \* These results indicate the disease status of 'Ear Tissue' samples tested at the laboratory & taken on the date specified above.  
 We recommend that you analyse the results above in consultation with your veterinary surgeon, to whom a copy of this letter has been sent.

**Disclaimer:**  
 Results relate only to the sample as received by the laboratory. No biological assay is 100% accurate and whilst laboratories warrant that their tests will meet their applicable declared specifications, the laboratories make no other warranty, expressed or implied and accept no responsibility or liability in respect of false results which are within the limits of the declared specifications of the tests offered.