

## PI Animal, A Sign That Calls for Testing and Vaccination of Entire Herd

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### Background

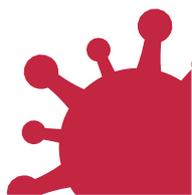
It is a Limousin beef cattle farm with 15 breeding females and 7-8 younger animals located in Santiago de Cudeyo in Cantabria, Spain. It is a “closed” farm and has not brought in outside animals for many years. From a medical perspective, the herd is very healthy and has been free of significant pathological processes in recent years. The herd is dewormed in spring and autumn and no vaccine plan has been implemented.

### Preliminary Indication

On 23 September 2015, the farmer called me to examine a 12-month-old female calf (ear tag 9162) with bloody diarrhoea, delayed growth and poor physical condition. The farmer informed that the animal has always been weak and suffered delayed growth, much smaller and thinner than other female calves the same age; that the animal has always had a “poor appearance”; and that some time ago the calf became less agile with a stiff gait. The calf has always had episodes of diarrhoea, but it was the negative progression to bloody diarrhea that prompted him to call me to assess the animal’s status. Because of the clinical symptoms and their progression, as well as the animal’s age, I suspected that it could be a persistently infected (PI) animal with mucosal disease. To confirm the diagnosis, I took a blood sample to conduct a BVD antigen test.



I contacted Boehringer’s sales rep and through him I forwarded the sample to the Neiker laboratory in Vizcaya for processing. I was informed that the sample had tested positive for BVD antigen. I advised the farmer to euthanize the animal due to the fatal prognosis and to prevent the spread of the virus to the other animals in the herd. I also advised him to test the entire herd to identify other potential PI animals and to vaccinate with L2D vaccine. The PI calf (9162) was euthanized, but the farmer decided not to test the rest of the herd or to vaccinate for the time being.



## Further Development

On 13 October, the farmer called me again to visit a 6-month-old male calf (ear tag 6719) with symptom onset similar to the euthanized PI calf. Given the farm's recent history, I suspected it could be a new case of mucosal disease in a PI animal, which is why we tested all animals older than 3 months on the farm for BVD antibodies, and those that were negative we then tested for BVD antigen.



The samples were once again sent to the laboratory. I was informed that of the 17 samples, only 1, calf 6719 (the source of the suspicion), was negative for BVD antibodies. The calf was subsequently found to be positive for BVD antigen, confirming it to be a PI animal.

## Treatment Applied

Together with the farmer, we decided to euthanize the PI calf and vaccinate the entire herd with a L2D vaccine.



## Result

To date, the herd has since remained free of all pathological and reproductive signs.

## Questions

Q1: Why did the farmer decided to test and vaccinate the entire herd?

1. It is suggested by the vet.
2. The herd had contact with outside animals.
3. **There was another outbreak of similar symptom.**

Q2: How did the farmer find out about PI animal on his farm?

1. He is familiar with BVD symptoms.
2. **He contacted his vet and did testing with Boehringer Ingelheim.**
3. A sales representative told him.