

# Farmer's Perception About Bovine Respiratory Disease (BRD) On Their Farms And Its Real Impact

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## INTRODUCTION

Bovine respiratory disease (BRD) poses significant morbidity, mortality, and economic challenges to the cattle industry. However, it is perceived that farmers often lack complete awareness of its importance within their farms.

## OBJECTIVE

The main purpose of this study was to improve producers' understanding of infectious diseases, such as identifying Bovine Respiratory Disease (BRD) in the calves on their farms and analyzing the owners' perception of the gravity of the problem. The idea was also to provide suggestions for improving management and protocols for vaccination or treatment to achieve better results.

## MATERIALS AND METHODS

- ▶ For this study, we used a convenience sample of 5 farms in the municipality of Barcelos, Portugal, with a previous history of BRD in calves under 100 days of age. A visit was made to these farms to identify the problems, and a lung ultrasound was also done on all calves under 100 days of age. Lung ultrasound is a minimally invasive diagnostic method that allows the identification of BRD more sensitively, in contrast to auscultation, which has some limitations in the diagnosis of lung consolidation (Buczinski et al., 2014). The ultrasound assessment was recorded according to the TUS Score.
- ▶ In addition to the lung ultrasound, an epidemiological survey was done to understand the most critical moments for BRD and the owner's perception of the impact of BRD on their farm.
- ▶ After the survey, thoracic ultrasound, and assessment of risk factors, an improvement plan was drawn up for each farm to reduce BRD and reduce its impact on the calves and, consequently, on the future of the farm.

Producers only treat part of the animals affected by BRD since it is more prevalent on farms than the treatments carried out. It is also often present in subclinical situations not identified in time.



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## RESULTS

- ▶ In the producer survey, a majority of 3/5 reported more BRD issues in the first 21 days of calf life, followed by 2/5 in days 22-43 and 1/5 in days 44-65. One farm experienced problems in two survey periods (0-43 days).
- ▶ Regarding prevention, 3/5 used intranasal vaccination only, 1/5 used both intranasal and parenteral vaccination, and 1/5 did not employ any prevention measures.
- ▶ The highest occurrence of BRD was in winter for 2/5, with 1/5 each in summer, spring, and fall.
- ▶ Treatment-wise, 3/5 of the producers treated up to 25% of the animals, while 2/5 treated between 76 and 100%.
- ▶ A total of 68 ultrasound assessments were conducted (average of 14 per farm) and revealed that 29% had severe lesions, 32% had mild lesions, and 38% had no lesions. On average, 45.6% of animals across the five farms had no lesions, but one farm had 64% of calves with severe lesions.

FIGURE 1. The results of the questionnaire on farmers' perceptions on BRD

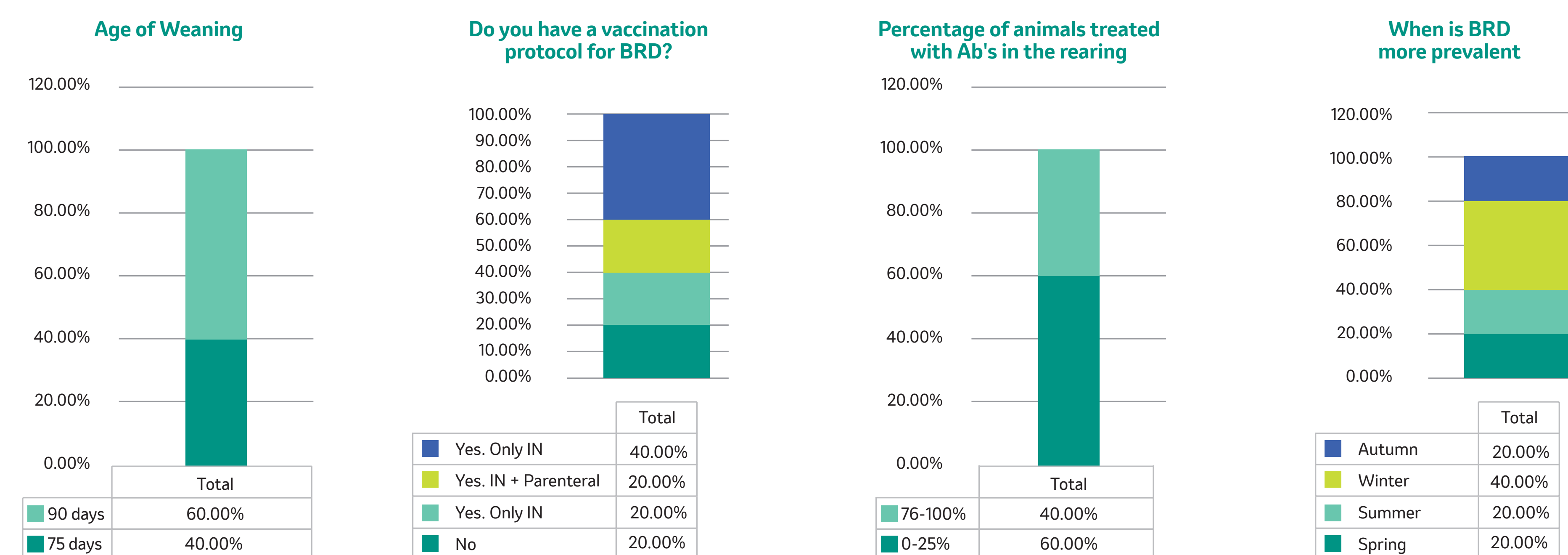
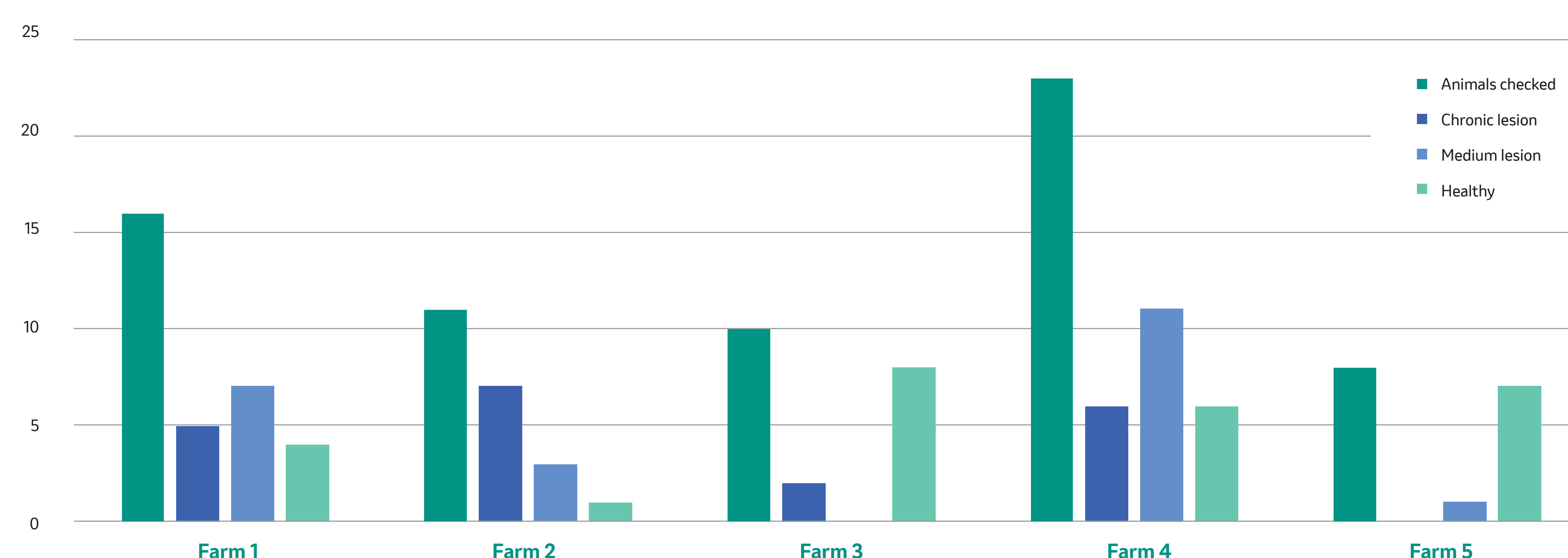


FIGURE 2. The number of animals that underwent thoracic ultrasounds and the distribution of lung conditions among them.



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