The Bovine Viral Diarrhea is a cause of important production and reproduction losses in dairy and beef cows exploitations. The aim of the present study was to determine the seroprevalence of beef cows in farms of the Baixo Alentejo, a south region of Portugal. A total of 3622 cows originated in 20 extensive beef farms were used. From this pool, a sample 111 animals greater than one old year were randomized using the \( n = \frac{1 - (\alpha)^{1/2}}{\text{D}} \times \frac{N - \text{D}}{2} + 1 \) formula in each exploitation. The ELISA INGEZIM BVD Compac® Kit (INGENASA, Imunologia e Genética Aplicada, S.A., Madrid, Spain) was used to determine the anti-BVDV antibody. The result of each animal was considered positive, negative or indeterminate if the optical density was lower than positive cut off, higher than negative cut off or between these values, respectively. The Pearson Chi-square, contingency coefficient and Cramer's V tests were used.

A tendency (\( P=0.06 \)) for a higher number of farms (65%) with positive animals than farms (35%) with negative animals was observed. However, a significant effect (\( P<0.01 \)) between the exploitation and the seroprevalence was observed. A variation from 20% to 100% of positive animal affected from the sample was observed in the 12 affected farms. A correspondence of 75% of positive animal was observed in the percentile 50. This suggests the presence of, at least, an animal persistently infected in each of these exploitations. Due to these results, we conclude that these affected farms need an improvement of their zootechnic and veterinary management in other to detect and eliminate the potential persistently infected animals and prevent new infections. However, new studies were necessary for estimate the realistic impact of this disease in the beef farms of this region of Portugal.