## PREVALENCE OF BOVINE VIRAL DIARRHEA IN LITHUANIA AND EFFECTIVENESS OF CONTROL MEASURES IN IDENTIFYING PERSISTENTLY INFECTED CATTLE

Rolanas Kliučinskas<sup>1</sup>, Kazimieras Lukauskas<sup>2</sup>, Jonas Milius<sup>3</sup>, Mykolas Mauricas<sup>4</sup> <sup>1</sup>Imunotechnologijos skyrius, Imunologijos institutas, Molėtų pl. 29, LT–2021, Vilnius; tel. (8~6) 87 94 644; El. paštas: rkliucinskas@vet.lt

<sup>2</sup>Užkrečiamų ligų katedra, Lietuvos veterinarijos akademija, Tilžės g.18, LT – 3022 Kaunas; tel. (8~6) 98 48 910; el. paštas: klukauskas@vet.lt

<sup>3</sup>Nacionalinės veterinarijos laboratorijos direktorius, Nacionalinė veterinarijos laboratorija, Kairiūkščio g. 10, LT–2021, Vilnius; tel. (8~6) 87 50 100; el. paštas: jmilius@nvl.lt

<sup>4</sup>Imunologijos instituto direktoriaus pavaduotojas, Imunologijos institutas, Molėtų pl. 29, LT–2021, Vilnius; Tel. (8~6) 98 89 322; el. paštas: mauricas@imi.lt

**Summary.** The aim of this study was to evaluate an effectiveness of control measures for bovine viral diarrhoea virus (BVDV) in Lithuania during 2001–2003. The BVD investigation data used in this article were supplied by the reference National Veterinary Laboratory (NVL). An enzym-linked immunosorbent assay was used to analyse sera for antibodies against BVD. During the study period 6843 samples were analysed and 2571 were found BVDV positive. The BVDV sero-prevalence varied from 23.5% to 47,6%. The cattle from which the samples had been collected were grouped according to age and sex: bulls, cows, heifers, and calves. The investigations showed that 54.6% of cows were sero-positive for BVDV whereas only 26.1% of calves had antibodies. BVD sero-prevalence was the highest in the areas of intensive animal husbandry: Klaipėda (55.9%), Marijampolė (53.6%), Šiauliai (47.1%), Telšiai (39.7%), Panevėžys (31.3%) and Kaunas (22.7%). In Alytus county only 4.2% of cattle were found BVD positive. At the beginning of 2001, NVL started to investigate cattle sera for BVD antigens in an attempt to detect persistently infected cattle in the herds. The result of this investigation showed that of 24 BVD antigen-positive cattle, only 6 were persistently infected.

**Keywords:** Bovine viral diarrhoea (BVD), virus, *Pestivirus, Flaviviridae*, enzym-linked immunosorbent assay (ELISA), antibodies (Ab), antigens (Ag), persistently infected (PI).