

PREVALENCE OF BOVINE PARAINFLUENZA 3 AND RESPIRATORY SYNCYTIAL VIRUS IN LITHUANIAN CATTLE

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Abstract. The aim of performed study was to determine the prevalence of bovine parainfluenza 3 (PI-3) and respiratory syncytial virus (RSV) in Lithuanian cattle from 2006 to 2008. To determine seroprevalence of PI-3 and RSV, 935 and 905 samples by stratified random sampling from 36 and 33 cattle farms, respectively, were investigated.

In year 2006 the number of PI-3 seropositive cattle was 72.8 % (CI 68.5 %–77.1 %). Further, in 2008 registered significant decrement of seropositive cattle – 56.8 % (CI 53.9 % – 64.3 %, $P < 0.05$). In majority of farms (91.7 %) antibodies to PI-3 virus were identified. In 20 of all investigated farms (55.6 %) the amount of cattle with antibodies to PI-3 exceeded 60 %. The amount of PI-3 seropositive cattle in the infected farms ranged from 15.4 % to 100 %.

The highest number of RSV seropositive cattle was identified in 2006 – 56.8 % (CI 51.9 % – 61.7 %). In the later years the number of RSV seropositive cattle changed statistically insignificant ($P > 0.05$). However, in majority of investigated farms – 30 (91.2 %), antibodies to RSV in cattle were identified. The percentage of RSV seropositive cattle in the infected farms ranged from 7.7 % to 100 %. In 15 farms (45.5 %), seroprevalence of RSV exceeded 60 %.

In cattle aged 8 months and younger, 46.5 % and 35.6 % of animals were seropositive to PI-3 virus and RSV. The majority of PI-3 and RSV seropositive cattle (93 % and 77.4 %) was registered in cow group. The number of seropositive individuals statistically significantly increased with age.

Key words: parainfluenza 3, respiratory syncytial virus, seroprevalence, cattle.