

SEROLOGICAL SURVEY ON PORCINE REPRODUCTIVE AND RESPIRATORY SYNDROME VIRUS (PRRSV) IN LITHUANIAN PIGS AND WILD BOARS

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Abstract. The main purpose of the present study was to investigate the seroprevalence of porcine reproductive and respiratory syndrome virus (PRRSV) infection in Lithuanian pigs and wild boars. The porcine serum samples (n=8704), collected from 2008 to 2011, were tested with enzyme linked immunosorbent assay, using commercial IDEXX, INGENAZA tests. The presence of the antibodies against PRRSV was detected in 4.29 % (95% CI 3.48 – 5.1) of the samples. The seroprevalence in sows and gilts (16.98%) was significantly higher ($P<0.05$) than in boars (0.48%), piglets (9.24%) and fattening pigs (1.79%). The detected seroprevalence differences in different study years were statistically insignificant ($P>0.05$), however, the swine farms (n=55) with seropositive pigs were widely distributed in 12 out of 30 Lithuanian regions.

From 1022 examined wild boar sera, collected during the hunting seasons in 2008–2011, 6.36 % (95% CI 4.52 – 8.2) of samples were positive to PRRSV antibodies in 49 locations out of 61 investigated. The number of seropositive animals over 4 year period decreased from 9.1% in 2008 to 6.06 % in 2011, however estimated seroprevalence differences were statistically insignificant ($P>0.05$). The analysis of seroprevalence in different age groups of wild boars showed that antibodies to PRRSV were present in all age groups, however it was significantly higher in adults than in juveniles, sub-adults and unknown age animal groups and reached 12.7% (95 % CI, 10.4 – 14.9). Our study showed that wild boars may play an important role in PRRSV transmission to the domestic pig population.

Keywords: PRRSV, seroprevalence, pigs, wild boars.