

EFFECT OF ACTIVE IMMUNIZATION AGAINST GnRH ON “BOAR TAINT”, TESTES AND ACCESSORY SEX GLANDS IN MATURED BOARS

Neringa Sutkevičienė¹, Ronaldas Bilskis¹, Jūratė Sabeckienė², Vigilijus Jukna³, Henrikas Žilinskas¹

¹*Animal Reproduction Laboratory of the Department of Non-Infectious Diseases
Veterinary Academy of Lithuanian University of Health Sciences
Tilžės 18, LT-47181 Kaunas, Lithuania*

tel. +370 37 363 318; e-mail: nerija@lva.lt; ronald@palemonas.lt; hezil@lva.lt

²*Department of Infectious Diseases, Veterinary Academy of Lithuanian University of Health Sciences
Tilžės 18, LT-47181 Kaunas, Lithuania, e-mail: patologija@lva.lt*

³*Laboratory of Meat Characteristics and Quality Assessment
Veterinary Academy of Lithuanian University of Health Sciences*

Tilžės 18, LT-47181 Kaunas, Lithuania, tel. +370 37 363 414; e-mail: vjukna@lva.lt

Abstract. The aim of the present study was to investigate the effect of active immunization with Improvac[®] (Pfizer Ltd, Louvain-la-Neuve, Belgium) on the concentration of boar taint substances, i.e., skatole and indole in the back fat and omentum tissues, testes, accessory sex glands and testosterone concentration in the blood serum of matured AI boars. Thirteen Danish Landrace clinically healthy mature boars from a commercial AI station were included in the study. The experiment lasted for 15 weeks. The animals were divided into 3 groups: not vaccinated animals (Control, n=7), twice vaccinated animals (Group II VAC, n=3), and 3 times vaccinated animals (Group III VAC, n=3). The mean concentrations of skatole in the back fat and in the omentum tissue of the Control group animals were by 0.62 ± 0.31 $\mu\text{g/g}$ and 0.64 ± 0.43 $\mu\text{g/g}$ higher than in Group III VAC ($P < 0.05$). The total weight of testes and accessory sex glands after 2 or 3 vaccinations with Improvac was significantly lower compared with the Control group ($P < 0.05$). The results of this study indicated that active immunization of matured boars against GnRH effectively reduced boar taint substances, i.e., indole and skatole levels, testosterone concentration and weight of testes and accessory sex glands.

Keywords: Improvac, boars, boar taint, testicles.