Summary. The aim of this work was to analyse and evaluate the existence of avian pathogens in commercial broiler flocks in Lithuania. Twenty blood serum samples were analysed from each of five commercial broiler flocks. Blood samples were taken at 1, 7, 14, 21, 28, 35 and 42 day of age. Titres of antibodies against IB, GD, ND and Reo viruses as well as variation coefficients were determined. Immune status of broilers, dynamics of antibodies and efficacy of performed vaccinations were evaluated. The results of performed study showed, that defective vaccination technique may result in failed and inefficient success of poultry vaccination. It was shown, that results of serological monitoring may help to monitor immune response, to control efficacy of vaccination and to optimise vaccination programmes. Regular serological examinations are of major importance for monitoring vaccination response and to control infections in broiler flocks.

Keywords: antibodies, titers, immunity, Gumboro disease, infectious Bronchitis, Newcastle disease, reovirus.