

SPREAD OF COLIBACTERIOSIS ON FARMS AND EFFICACY TESTS OF *E. COLI* VACCINE DEVELOPED FROM LOCAL STRAIN CULTURES

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Summary. In 1994-1997 we passaged bacterologically 227 museum *E. coli* cultures and 11 ones isolated from the pathological material taken from 46 farms in 26 regions of Lithuania. Morphological, cultural, biochemical, antigenic and immunogenic properties of those cultures were investigated. The investigations revealed that the given *E. coli* cultures contained 1-2 or all 5 superficial adhesive antigens. Multiple passages and agglutination with polyvalent adhesive sera revealed the changeability of the above properties. For this reason many available *E. coli* strains were condemned as defective and only 20 *E. coli* strains were selected for further storage in the collection of microorganisms. The strains N 130, 186, 213, 215, 222, 231, which after multiple passages did not change their antigenic and immunogenic properties were taken for the production of an activated vaccine against *E. coli* bacteria in pigs.

After the experimental infection with virulent *E. coli* bacteria the white mice immunised with the vaccine against pig *E. coli* bacteria survived. The activated vaccine produced from *E. coli* bacteria has been tested and used for pig vaccination at Boniškiai (Pasvalys dc.), Šalnaičiai (Šilutė dc.), Grabupėliai and other farms. After the vaccination the morbidity and mortality of aged 0,5-4 t month piglets reduced 3,6 times.

Keywords: epizootology, *E. coli*, vaccine, immunization, immunity.