

Stanisław Kondracki, Dorota Banaszewska, Anna Wysokińska, Maria Iwanina

The estimation of sperm morphometric traits of Polish Large White and Polish Landrace young boars used in the insemination

S u m m a r y

The experiments were carried out on 128 ejaculates taken by the gloved-hand method from 18 Polish Large White and Polish Landrace boars used for insemination. Young boars at the age of approximately 7-8 months, not used in reproductive performance, were chosen. One ejaculate taken from each boar in each successive month was examined in detail. The standard evaluation of the ejaculates, included their volume, spermatozoa concentration and motility according to methods used in Polish sow insemination stations. Apart from that, each ejaculate was tested for spermatozoa morphology. The frequency of morphological changes in spermatozoa was established according to Blom classification. Then, morphological measurements in randomly chosen spermatozoa such as basic measurements and indices of spermatozoa morphological structure were estimated by means of computer picture analysis (Screen Measurement v. 4.1). It was found that spermatozoa of Polish Landrace boars were a bit longer, which was the result of a longer flagellum, than that of Polish Large White boars which had a larger head circumference. Differences between breeds in the measurements and spermatozoa shape were greater and better evidenced in ejaculates of older boars (12-16 months) than in those of young boars (7-11 months). It could be indicated that morphological traits of spermatozoa are genetically controlled and their expression depended on the sexual development of male.