

The effect of selected factors on the results of individual evaluation of bulls and the first estimation of their breeding value

S u m m a r y

The investigations were conducted on 113 crossbred bulls of Black-and-White and Holstein-Friesian breed and 40 purebred Holstein-Friesian bulls from Animal Breeding and Insemination Station in Bydgoszcz. The body weight, height at withers, chest girth, massiveness index of bulls at the age of 360 days, points for size, muscling, conformation and also results of the first breeding value evaluation were examined. The bulls were allotted into three groups depending on the origin from rearing unit, three groups with a different share of HF gene and three groups according to seasons of birth. Bulls included into particular groups differed significantly in respect of the results of the individual evaluation of bulls and the first estimation of their breeding value. Depending on the body weight at 360 day of life the heaviest were bulls from rearing unit in Osięciny – 488.35 kg, while the lightest the ones from the Lisnowo – 431.21 kg. Apart from that the bulls from Lisnowo were found to have the highest height at withers at 360 day of life, while the lowest height at withers had the bulls from Osięciny. The chest girth at the age of 360 days was the greatest for bulls born at Osięciny – 186.19 cm, and the smallest was noticed in bulls from Lisnowo – 173.07 cm. The first breeding value for milk yield, was the highest in the bulls from Lisnowo while the lowest value had bulls from Gajewo. Bulls with highest HF gene share (90.1-99.9%) exceeded crossbred bulls in respect of body weight, height at withers and chest girth – at 360 day of life as well as in relation to the first evaluated breeding value for milk yield and fat yield. Season of birth also influenced significantly the values of examined traits of bulls.