

## Application of logistic regression for analysis of some reproduction traits in sheep

### S u m m a r y

The data consisted of 2295 Polish Merino ewes. The ewes originated from two flocks located in the region of Kujawy and Pomerania. The following traits of reproductive performance were analyzed: fertility and litter size. The numerical data were verified statistically with the method of  $\chi^2$  test and multivariate logistic regression analysis, including effect of the flock, type of birth, number of lambing, season of lambing and year of lambing. According to the multivariate logistic regression analysis three independent variables: flock, number of lambing, year of lambing and flock x lambing interaction, were associated statistically with the reproduction traits. The results suggest that logistic regression method can be used for statistical analysis of reproduction traits.