

## Statistical analysis of lamb mortality using logistic regression

### S u m m a r y

The experimental material consisted of 638 Polish Merino lambs originated from three flocks located in the region of Kujawy and Pomerania. Lamb preweaning mortality during three lambings was modeled using multivariate logistic regression analysis. The logistic regression analysis, showed three independent variables, i.e.: number of lambing, type of lamb birth, lambing season associated with lamb mortality. Yearlings produced lambs with lower survival rates than older ewes did. Multiple births increased the risk of preweaning mortality, odds ratio (OR=2,079). During spring-summer time indicated risk of preweaning losses was greater than during autumn-winter lambing season. The obtained results suggest that logistic regression method can be used for statistical analysis of binominal reproduction traits like mortality of lambs.