Czesława Lipecka, Tomasz M. Gruszecki, Andrzej Junkuszew

Evaluation of effects of sheep prolificacy improvement project over 1996-2006

Summary

The paper aims at assessment of effects concerning reproductive traits of the animals included into the Program of sheep prolificacy improvement. The research material was collected from the annual records of the Polish Sheep Breeders Association. The resulting data revealed that during the 11-year program, 162,570 ewes of the indigenous breeds were under the recording scheme, in that Polish Merino (MP) accounted for 61.6%, Polish Lowland Sheep (PON) 34.4%, while the other breed groups, i.e. Polish Longwool Sheep (POD) and Polish Mountain Sheep (POG) - 4%. The breed groups of ewes were upgraded through crossbreeding with Romanov, Charolaise, Finn, Friesian, Olkuska rams and the prolific line 09. In consequence of the „Program” implementation, the ewes born with 75% local breed genotype and 25% prolific breed genotype were evaluated for reproductive performance. There was established increased fertility and prolificacy of the whole active population by 2.9 and 10.9 percentage units, respectively, including prolificacy in Polish Merino by 13.8, Polish Lowland Sheep by 8.1 and Polish Mountain Sheep by 5.7 percentage units. Analyzing the outcomes of improved population performance, it was stated that the best results were obtained when Romanov and Friesian rams were used. However, no changes were reported in the performance parameters in the sheep upgraded with Charolaise breed. Interestingly, there has been noted a decreased level of fertility and prolificacy for the sheep improved by Olkuska rams.