Reproduction of synthetic prolific-meat line (BCP and SCP) sheep selected in relation to birth type

Summary

The objective of the present research was to analyze reproductive performance of sheep from synthetic prolific-meat lines (BCP and SCP) that were selected as regards birth type. The studies included 408 ewes born in 2001-2006, managed under the same environmental and feeding conditions and mated for the first time at the age of approximately 15 months, in the harem system from 1st August to 15th September. In 2003-2008, a total of 984 lambings were under observation, in that 475 in the BCP line and 509 in SCP. There have not been found any significant differences between the performance parameters recorded at breeding seasons (except for lamb rearing - season I and IV) characterizing the ewes of BCP and SCP line. Mean value of the reproductive outcomes after 6 consecutive mating seasons was as follows: fertility - 94.5 and 94.7%, prolificacy - 170.6 and 169.3%, lamb rearing - 87.3 and 87.5%, reproduction performance - 140.8 and 140.3%, for each line respectively. It was stated that selection in synthetic prolific-meat lines ewe reproduction with a concern to birth type proved to be efficient in relation to prolificacy and reproductive efficiency. In sheep mothers born in twin lambs, mean prolificacy appeared to be higher by 18.2 percentage units, whereas reproductive performance by 17 percentage units as compared to those born at the same time in single birth. There was not recorded any significant impact of such a selection on lamb fertility or rearing.