

THE INFLUENCE OF BREED ON REPRODUCTION CHARACTERISTICS OF LITHUANIAN RED AND RED-AND-WHITE COWS POPULATION

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Summary. The objective of this study was to estimate the influence of breed on reproduction characteristics of Lithuanian Red and Red-and-White cows. Data were analysed using PostgreSQL 7.2 and Redhat 6.2 OS for LINUX. Population records of Lithuanian Red and Red-and-White cows from 1995 to 2003 were compared statistically. The results showed a significant influence ($P<0.001$) of breed on reproductive traits. The largest influence of breed was found for calving age in the first, second, or third lactation (from 8.14 % to 6.63 %, $P<0.001$). The influence of breed on the insemination index for the first, second and the third calving ranged from 4.96 % to 0.91 % ($P<0.001$), while influence of breed on calving interval was slightly lower (3.07 % to 0.94 %, $P<0.001$). High positive and highly significant correlation coefficients between service-period and calving interval of cows were estimated in all three lactations. However, either service-period or calving interval should be used in the breed selection program, because of a very high correlation level between the traits.

Keywords: Cow, breed, age at calving, insemination index, service-period.