

CYTOGENETICAL CATTLE INVESTIGATIONS

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Summary. In order to make methodical improvement of farm animal traits it is necessary to have sufficient number of very productive high breeding value sires. While using broad scale selection tools, with high value bulls it is possible to improve large herds of animals so the role of one sire grows significantly. The usage of such bulls and their progeny on large scale can improve not only production but also can distribute recessive hidden anomalies. Part of these genetic anomalies is possible to test by cytogenetical analysis of chromosomes. The aim of this study was to test deviations of chromosome number and structure and to evaluate breed influence to the frequency of aberrations between young sires. Heritable deviations of chromosome number or structure have not been found between young bulls kept in enterprise "Panevėžys". The mean number for chromosome aberrations was 0.04 aber/cell, the mean number of cells with deviations 13.04 %. The most frequent chromosome aberration was found to be chromosome gap. The breed influences 32.6 % variation of chromosome frequency, 29.1 % of gaps frequency variation.

Key words: Chromosome, karyotype, chromosome aberrations.