

THE GENOTOXICAL INFLUENCE OF CONTAMINATION FROM KĖDAINIAI CHEMICAL PLANT AND LITHUANIAN ELECTRICAL POWER STATION ON CATTLE

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Summary. The goal of the experiment was to estimate the influence of environmental chemical hazards on the reproductive performance and hereditary material of cattle near ecologically dangerous objects-Lithuanian electric power station in Elektrėnai and the Chemical plant in Kėdainiai. Totally 260 cows were investigated cytogenetically and 2460 cows on reproductive data. Cows from both polluted areas had statistically significantly higher (3,85 % in Kėdainiai: 6,25 % in Trakai) percentage of cells with chromosome aberrations in comparison with the control area. Reproductive records had a tendency to be worse from cows of contaminated farms due to the direct influence of hazards through fodder and respiratory organs as well as to the indirect influence - an increased number of aberrant cells in lymphocytes that correlates with unstable gametes and reproductive disorders.