

# COMPARATIVE ANALYSIS OF THE BIOLOGICAL PROPERTIES OF ETHANOL EXTRACTS OF THE GENUS *MONARDA* REPRESENTATIVES ON THE EXAMPLE OF *DROSOPHILA MELANOGASTER*

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## ABSTRACT

Determination of toxic, genotoxic and cytotoxic effects of *Drosophila melanogaster* for *Monarda fistulosa* var. *menthifolia*, *M. fistulosa*, *M. didyma* and *M. media* was carried out. The Oregon-R line was used to test for toxic manifestations in a number of indicators: fecundity, early and late embryonic mortality of offspring and total lethality of individuals ( $LC_{50}$ ). The genotoxic effect was recorded using SMART. The change in the wing shape and regulated cell death was determined. The lethality of individuals grown on a nutrient medium with the addition of an extract of *M. fistulosa* var. *menthifolia*, as well as  $F_1$  offspring at the embryonic stage of development was studied. Genotoxicity was not registered for any of the tested extracts. The *M. didyma* extract is characterized by cytotoxic properties. An effect on viability was found for extracts of *M. media* and *M. fistulosa* var. *menthifolia*. Cytotoxic effect was observed when exposed to *M. didyma* extract.