

## **P1. THE GENOTOXICITY AND CYTOTOXICITY OF FUNGUCITE (LUNA EXPERIENCE-EC 400) FLUOPYRAM/TEBACONAZOL COMBINATION SINGLE GEL CELL ELECTROPHORESIS (COMET ASSAY) AND MICRONUCLEUS ASSAY IN RAT BONE MARROW**

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Pesticides are chemical substances that prevent from harmful organisms and reduce their harms. Pesticides are classified by their durability time, chemical structure and organisms which it affected. Fungicide is a general term that given to all chemicals which are used to take under control the fungus that infect on plants. Luna Experience SC-400 is a new generation fungicide that combined with Fluopyram and Tebuconazole. Tebuconazole is a triazole fungicide. Tebuconazole was tested in vitro for its potential genotoxic and cytotoxic effects on cultured bovine peripheral lymphocytes. Fluopyram is a benzamide fungicide. Genotoxic effects of fluopyram was examined and reported in rats. In this study, We used three different doses (5 µg/kg, 10 µg/kg, 20 µg/kg) of Luna Experience-EC 400 during 30 day at 48 h intervals by gavage in rats. We investigated the genotoxicity and cytotoxicity of Luna Experience-EC 400 using comet assay and micronucleus test in rat bone marrow. We found that Luna Experience-EC 400 has genotoxic and cytotoxic potential in rat bone marrow. There is significant difference between control group and all the doses of Luna Experience-EC 400 ( $p < 0.05$ ) for comet assay levels and micronucleus frequency. In this study, we also investigated the PCE/total erythrocyte rate. All the doses of Luna Experience-EC 400 lead to decreasing the amount of PCEs. It is found that this decrease is statistically significant ( $p < 0.05$ ).

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