

## HEMATOLOGICAL PARAMETERS INFLUENCED BY THE HERBICIDE ATRAZINE (AS AN ENVIRONMENTAL POLLUTANT) USING (WISTAR RATS) AS AN EXPERIMENTAL ANIMALS

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### ABSTRACT

Twenty rats of different sex, were randomly divided into 4 groups (5 rats/ each). Three groups were subjected to different doses (27.3, 38.5, and 42.0 mg/kg bw) of the herbicide atrazine, through a duration of 40 days (initial, 10, 20, 30 and 40<sup>th</sup> time intervals). Complete blood count was made for all animals. All animals showed significantly decreased ( $P \leq 0.05$ ): WBCs, Hb, RBCs, MCV, HCT, MCHC, and PLT count, at all doses, through increased time intervals, compared to control, remarkably at the dose 27.3 mg/kg bw by the 40<sup>th</sup> day of the experiment. Observed results may reflect no inflammatory indications (decreased WBCs count), but highly reflection of anemic impacts due to oral administration of the mentioned herbicide. This herbicide is heavily used as a weed killer in sugar – cane, and other commercial crop farms, that may lead to deleterious expected health effects on exposed humans and the environment, especially water systems and the aquatic biota.

**KEYWORDS:** Herbicides, Atrazine, Environment, Pollution, Bio Magnification, Chronic Exposure, Engineered Pesticide-Resistant,  $LC_{50}$

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