EFFECTS OF *Bacillus thuringiensis* (Bt) CORN ON THE RED BLOOD CELLS OF ALBINO RAT (*Rattus norvegicus* var. Sprague-Dawley)

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ABSTRACT

Bt corn is one of the genetically modified crop that is modified by the addition of a *Bacillus thuringiensis* which is a gram-positive rod-shaped spore forming soil bacterium. The purpose of this study was to determine the effects of the Bt corn on the red blood cells of the male albino rats. The results showed that Bt corn have no effect on the color of red blood cells since the observed color did not change in each treatment. The red blood cell shape was also observed and there were some cells that appeared elliptical on the blood smears of the experimental group but still it was considered normal. The red blood cell diameter was measured and the data showed that there were small sizes of red blood cells in the experimental group. The observation was still normal since the diameter of the small red blood cells was in the normal range of diameter of red blood cells of mammals. The next parameter of this study was to determine the effect of Bt corn on the red blood cell count. Therefore, the red blood cell of each treatment was counted and it showed that there was significant decrease on the red blood cell count of the experimental group compared to that of the control group. The significant decrease in red blood cell count may have been caused by decreased production of red blood cells that could be attributed to renal dysfunction. This can probably be linked to the renal toxicity or liver damage.

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