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EVALUATION OF TOXIC POTENTIALS OF *Cola millenii* K. Schum SEED AND PULP FLOUR IN FOOD FORMULATIONS

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ABSTRACT

Different parts of *Cola millenii* have been used in traditional medicine and available information in the literature has highlighted some nutritional potentials of C*ola millenii* seed and pulp. Previous studies on the toxicity of the seed were conducted on the extracts and conflicting evidences were obtained. Therefore, this study assesses the health risk of consuming *Cola millenii* seed and pulp flour in Wistar Albino rats.

The result obtained showed insignificant ($p>0.05$) difference in the organ weight of rats across the groups. Feeding of animals with the whole seed, pulp, and defatted seed flour showed no toxic effects on the food and water intake. Significant ($p<0.05$) increase was observed in the AST activity of group fed with whole seed and defatted seed flour while no significant ($p>0.05$) difference was observed in the ALT and GGT activity across the groups. Creatinine concentration decreased significantly ($p<0.05$) in the group fed with the defatted seed flour while urea concentration decreased significantly ($p<0.05$) in the group fed with the whole seed flour. Degenerative changes indicated by inflammation, necrosis and fibrosis were observed in the liver of group fed with the whole seed flour as well as in the kidney of groups fed with whole seed, defatted seed, and pulp of *C. millenii*. The result of this study showed that *C. millenii* seed might be slightly toxic. Therefore, there is a need for caution in the use of *C. millenii* as food.