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American Journal of Food Technology
Year: 2010 | Volume: 5 | Issue: 6 | Page No.: 376-384
DOI: 10.3923/ajft.2010.376.384Studies on Some Biochemical and Histological Changes Associated with Long Term Consumption of Leaves of *Ocimum gratissimum* L. in Male Rats

E.E.J. Iweala and O. Obidoa

Abstract: This study investigated changes in some biochemical and histological parameters in male rats fed with an *Ocimum gratissimum*-supplemented diet for six months. Biochemical parameters studied include serum protein, cholesterol, lipid peroxidation, glutathione-S-transferase, superoxide dismutase, alanine transaminase, aspartate transaminase, alkaline phosphatase, haemoglobin and white blood cells. The histological characteristics of various sections of liver, intestines and testes were also examined. The weight of the testes increased significantly ($p < 0.05$) over the control. There were also significant red blood cell counts ($p < 0.05$) in serum protein, cholesterol, lipid peroxidation and haemoglobin in the testes. Superoxide dismutase was also significantly increased ($p < 0.05$) while the change in glutathione-S-transferase, alanine transaminase, aspartate transaminase and alkaline phosphatase were not significant. White blood cell count was significantly increased ($p < 0.05$). Histological changes in the intestines revealed the presence of increased goblet cells. The testes also showed increased number of sperm cells and spermatogonia while there were no visible changes in the histology of the liver.

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Iweala, E.E.J. and O. Obidoa, 2010. Studies on some biochemical and histological changes associated with long term consumption of leaves of *Ocimum gratissimum* L. in male rats. Am. J. Food Technol., 5: 376-384.DOI: [10.3923/ajft.2010.376.384](https://doi.org/10.3923/ajft.2010.376.384)URL: <http://scialert.net/abstract/?doi=ajft.2010.376.384>**COMMENT ON THIS PAPER**Full Name: E-mail: Comments:

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