

FOOD FROM *SORGHUM BICOLOR L. MOENCH* AS SOURCES OF HEALTH BENEFICIAL BIOACTIVE COMPOUNDS

Israel S. Afolabi^{*1}, Abimbola F. Jolaoluwa², Precious T. Amosun¹, Victoria O. Awogbindin¹

¹Covenant University, College of Science and Technology, School of Natural and Applied Sciences, Department of Biological Sciences, Biochemistry Unit, Canaan Land, Km. 10, Idiroko road, P. M. B. 1023, Ota, Ogun State, Nigeria.

²Liquid Bulk Limited, Aker Road, Rumuolumeni, Port Harcourt, Rivers State, Nigeria. E-mail: - jolabimbo@yahoo.com

Corresponding Author* : Dr. Israel Sunmola Afolabi;

Covenant University, College of Science and Technology, Department of Biological Sciences, Biochemistry Unit, Canaan land, Km. 10, Idiroko road, P.M.B. 1023, Ota, Ogun State, Nigeria. Phone:- (+234) 8033923264, Fax:- +234-1-7936529; E-mail: israel.afolabi@covenantuniversity.edu.ng or afolabisunmola@yahoo.com

ABSTRACT

Aqueous extract of *Sorghum bicolor L. Moench* (Omi ogi) have been implicated in the cure for malaria, celiac disease, hepatitis and sickle cell anemia, which may be due to the constituents' bioactive compounds. The aqueous extract was screened for the presence of twenty bioactive compounds using High Performance Liquid Chromatography (HPLC). Nine of which were detected and quantified to be quercetin (5.683 ± 1.467 mg/g dry wt.), caffeic acid (20.020 ± 0.044 mg/g dry wt.), p-coumaric acid (0.274 ± 0.050 mg/g dry wt.), resveratrol (0.347 ± 0.105 mg/g dry wt.), hesperidin (16.766 ± 0.470 mg/g dry wt.), rosmarinic acid (4.081 ± 0.160 mg/g dry wt.), rutin hydrate (0.133 ± 0.031 mg/g dry wt.), cinnamic acid (0.005 ± 0.000 mg/g dry wt.) and chlorogenic acid (1.748 ± 0.033 mg/g dry wt.). The presence of these bioactive compounds may be responsible for the excellent health benefits associated with the local consumption of processed product of the plant and the therapeutic applications of the extract.

Key words: Health benefits, Plant, Sorghum, Bioactive, HPLC

