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Title: Phytochemical Composition and Nutritional Quality of *Glycine max* and *Vigna unguiculata* (L.) Walp.

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Abstract: The present research discussed the nutritive value and phytochemical composition of three cultivars of *Vigna unguiculata* and *Glycine max* grown in Nigeria. Phytochemical studies revealed the presence of bioactive compounds comprising flavonoids (2.36-6.28 mg/100 g), alkaloids (1.28-1.64 mg/100 g), tannins (0.38-0.77 mg/100 g), saponins (0.11-0.23 mg/100 g). The protein, carbohydrate, lipids and fiber content were 19.69-39.08, 32.78-67.26, 2.70-21.08 and 1.78-4.68%, respectively. The food energy value ranges from 363.71-477.16 cal g¹. The grains are rich in B-vitamins such as niacin (1.85-4.01 mg/100 g), thiamin (0.46-1.72 mg/100), riboflavin (0.22-170 mg/100 g) and ascorbic acid content ranges from (5.20-55.44 mg/100 g). These grains are good sources of minerals comprising calcium, magnesium, phosphorus and potassium while sodium content was low. The legumes can be considered as sources of quality raw materials for food and pharmaceutical industries.

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