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## Performance and Egg Quality Characteristics of Egg-Type Chickens as Influenced by Fluted Pumpkin (*Telfaria occidentalis*) Leaf Extract

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### Abstract

A total of 120 sixteen week-old point of lay birds of the Isa Brown strain were used for the experiment to determine the effect of fluted pumpkin (*Telfaria occidentalis*) leaf extract (FPLE) administered orally on laying performance, egg quality characteristics, blood chemistry-haematology and serum chemistry for a 12 week period. The birds were randomly assigned to five treatment groups: control group with no FPLE; 30 ml FPLE per litre of drinking water; 60 ml FPLE; 90 ml FPLE and 120 ml FPLE, respectively, at three-day intervals. Feed was given *ad libitum*. Eggs were collected at two-week interval to determine external and internal egg qualities. Blood sampling was carried out at the twelfth week of experiment. The results show that FPLE significantly ( $p < 0.05$ ) increased hen-day with birds in group with 120 ml FPLE l<sup>-1</sup> water having higher values than other groups. External egg qualities were not influenced by FPLE inclusion. Internal egg qualities like shell weight and haugh unit were significantly increased by FPLE with birds in group with 120 ml l<sup>-1</sup> FPLE having the highest significant values than births in control and other groups. Haematology results show that for packed cell volume (PCV), haemoglobin were not similar for all the groups in this experiment. However results for red blood cell count (RBC) and white blood cell count (WBC) and differential were increased with FPLE intake with birds administered 120 ml l<sup>-1</sup> of FPLE having the highest values for RBC and WBC. Serum chemistry results show similarities for serum total protein, albumin, globulin, total cholesterol and serum alanine transaminase (SALT). FPLE has been proven to be a haematinic in rats and broiler chickens; this present result further strengthens this assertion though the results for blood analysis are contrary to that obtained by the authors for meat-type chickens. It can therefore be concluded that up to 120 ml l<sup>-1</sup> of drinking water can be tolerated by egg type chickens from point-of-lay phase to early laying phase.

**Keywords:** Egg, fluted pumpkin, haematology, serum biochemistry