1Oke O., 2Oduguwa O., 2Oso A., 2Jegede A., 2Osofowara A., 3Pirgozliev V.

**1Federal University Dutse, Jigawa, Nigeria.2Federal University of Agriculture, Abeokuta, Nigeria.3Harper Adams University, Newport, Shropshire, TF10 8NB, United Kingdom.**

**ABSTRACT**

An experiment was conducted to evaluate the response of turkeys fed diets containing Malted sorghum sprouts (MSP) supplemented with enzyme or yeast. One hundred and twenty 28d old British United Turkeys were assigned (20 per treatment, 4 replicates of 5 poults each) to 6 dietary treatments arranged in a 3 x 2 factorial of 3 inclusion levels of MSP (0, 50 and 100 g/kg) supplemented with either 200 mg/kg each of Roxazyme G2® or yeast. At 84d, Apparent Metabolisable Energy (AME), AME corrected for nitrogen retention (AMEn), True metabolisable energy (TME) and TME corrected for nitrogen retention (TMEn) were determined. At 112d, ileal digesta viscosity (2 birds per replicate; 48 birds in all) were selected, slaughtered and digesta content collected from the Merckel’s diverticulum to the ileo-caecal junction. The ileal content of each replicate were emptied into labelled sample bottles. Uniform weight of samples were taken with a sensitive scale and was diluted to a volume of 400ml. The ileal digesta viscosity was determined using a brookfiled DV-E viscometer. The readings were taken at 50, 60 and 100 revolution per minute. Data generated were analysed using ANOVA. Polynomial contrast (Linear and Quadratic) was used to determine effects of enzyme or yeast inclusion using SPSS (1999). Data were analysed using ANOVA. Polynomial contrast (Linear and Quadratic) was used to determine effects of enzyme + yeast inclusion using SPSS (1999). Birds fed 50g/kg and 100g/kg MSP had higher (P < 0.05) values of 15.63,15.77 MJ/kg AME, 15.57,15.70 MJ/kg AMEn and16.93,16.71 MJ/kg TMEn respectively, while the least values 15.29,15.23,16.38 MJ/kg of these measurements were recorded for birds on control diet. TME values and dietary supplementation with enzyme or yeast showed no effect. Ileal viscosity increased (P < 0.01) with increasing concentration of MSP with or without additives.