ABSTRACT

Production of ISA-Brown laying hen age 25-30 weeks feed fermented Jatropha curcas meal supplemented with cellulase and phytase

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The aim of this study was to analyze the effect of feeding fermented Jatropha curcas meal (JCM) supplemented with cellulase and phytase on the performance of laying hens aged 25-30 weeks. This study used 200 ISA-Brown strain laying hens. A completely randomized design with 5 treatments and 4 replications was used in this experiment. The treatment diets were: R0 (control diet, without JCM), R1 (diet contained 7.5% fermented JCM), R2 (diet contained 7.5% fermented JCM + 200 g of cellulose/ton), R3 (diet contained 7.5% fermented JCM + 200 g phytase/ton), and R4 (diet contained 7.5% fermented JCM + 200 g cellulase/ton + 200 g phytase/ton). The parameters observed were feed intake, hen day production, egg mass production, egg weight, feed conversion, and mortality. The data were analyzed using analysis of variance and significant differences among treatments were tested using Duncan Multiple Range Test. The results showed that feeding fermented Jatropha curcas meal 7.5% supplemented with cellulase and phytase has not been able to improve performances of laying hens aged 25-30 weeks, however supplemented cellulose 200 g/ton yielded the same hen day production and egg mass of laying hens aged 30 weeks as the control diet.

Keywords : laying hen, Jatropha curcas meal, fermentation, cellulase and phytase