



MINISTRY OF JIHAD-E-AGRICULTURE

Agricultural Research, Education and Extension Organization
Animal science research institute of Iran

Effects of using different levels of Amaranthus grain in pelleted feed on performance and blood parameters of broiler chickens

Research worker: Amir Hossein Alizadeh-Ghamsari

Abstract

The aim of this study was to evaluate the effects of amaranth grain in pelleted feed on performance and some blood parameters of broiler chickens. A total of 400 seven-day-old Ross 308 boiler chickens were attributed in a completely randomized design with four treatments and five replicates of 20 birds each. Experimental treatments were included four levels of amaranth grain (0 (control), 2, 4 and 6%) in isocaloric and isonitrogenous pelleted diets. During the experiment (day 7-42), body weight (BW) and feed intake (FI) were recorded weekly and average daily gain (ADG), feed conversion ratio (FCR), and production index (PI) were calculated. On day 42, blood samples were collected from 3 birds per replicate for evaluation of some blood parameters. Birds received 2% amaranth grain showed higher BW, ADG and PI in comparison with other treatments. Birds fed diets including different levels of amaranth grain had lower cholesterol and low density lipoprotein (LDL) in blood sera compared to the control ($P < 0.05$). Dietary inclusion of amaranth grain up to level of 2% can improve productive traits of broiler chickens and decrease blood cholesterol and LDL levels which may have beneficial effects for birds and human community.

Keywords: amaranth grain, pelleted feed, blood parameters, broiler chickens.