

## **Evaluation of Distiller's Dried Grains with Solubles as a Feed Ingredient for Broilers**

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Distiller's dried grains with solubles (DDGS), a by-product of the ethanol industry, is becoming available to feed producers in large quantities. The material used in these studies is "new generation" DDGS, derived completely from corn, the solubles fraction being free of by-product streams from other processes, and using drying conditions that are less harsh than in the past. Two experiments were conducted to evaluate the use of DDGS in practical broiler diets. Experiment 1 was a 2 x 2 factorial design with diets containing two levels of DDGS (0 and 15%) and two diet densities (high and low). The high density and low density diets were formulated to contain 23% CP and 3200 Kcal ME/kg and 20% CP and 3000 Kcal ME/kg, respectively. Eight pens of six chicks each were fed each experimental diet from 0 to 18 d of age. Chicks were weighed and feed consumption measured at 7, 14 and 18 d of age. At 18 d of age, body weight and feed efficiency of chicks receiving the high density diet was significantly ( $P < 0.05$ ) better than the chicks fed the low density diet. However, within the two density levels, there was no difference ( $P > 0.05$ ) between chicks receiving diets with 0 or 15 percent DDGS. Experiment 2, a floor pen study was conducted from 0 to 42 d of age, which was randomized into 6 replications of 50 chicks fed one of four dietary treatments. The treatments were formulated to be isocaloric and isonitrogenous and contained 0, 6, 12 or 18% DDGS. There was no observable difference ( $P > 0.05$ ) in productive performance between treatments except for a slight, but significant, depression in body weight gain at the 18% DDGS. Ten birds from each pen were processed to observe carcass yield. No differences were noted between treatments. These studies indicate that the "new generation" DDGS evaluated is a highly acceptable feed ingredient for broiler chickens.

Key words: distiller's dried grains with solubles, DDGS, broilers, feed ingredients, carcass yield