

The Use of Distillers Dried Grains Plus Solubles (DDGS) For Laying Hens

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An experiment was designed to examine the effects of “new generation” distiller’s dried grains plus solubles (DDGS) in commercial laying hen diets. Four experimental diets were fed to eight replications of 16 Hy-line W36 laying hens per treatment from 21 to 43 weeks of age. The four dietary treatments consisted of a commercial grade diet (18.5% CP, 2870 Kcal ME/Kg, 4.0% Ca and 0.42% available P) with 0 or 15 percent DDGS and a low density diet (17% CP, 2800 Kcal ME/Kg, 4.0% Ca and 0.42% available P) also with 0 or 15 percent DDGS. Hen body weights and feed consumption were measured periodically throughout the 22 week period. Several tests were performed throughout the experiment to explore all parameters of egg characteristics that may be affected by DDGS. These tests included egg production, egg weight, feed intake, specific gravity, Haugh units, yolk color, and shell breaking strength. No significant differences were observed ($P > 0.05$) in egg production between the two commercial grade diets (0 and 15% DDGS) and the low density diet with 0% DDGS. However, there was a slight, but significant, depression ($P < 0.05$) in egg production with the low density diet containing 15% DDGS as compared to the other three dietary treatments. No significant differences ($P > 0.05$) in egg weights were observed among the four dietary treatments. No significant differences were observed ($P > 0.05$) for any of the egg characteristics measured. One might expect to see an increase in feed consumption when hens are fed the low density diet yet no significant differences in feed consumption were observed. Summer temperatures may provide some explanation for the lack of differences in feed consumption. Distiller’s dried grains plus solubles proved to be a successful feed ingredient when used up to 15% in commercial laying hen diets.

Key words: laying hens, distiller’s dried grains plus solubles, DDGS, low density, feed ingredients