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USING CORN, WHEAT, MILO OR TRITICALE

FOR EGG PRODUCTION

E. Guenther¹

Triticale is a cereal hybrid of wheat and rye. Laying diets based on triticale, corn, wheat or milo each were fed to 8 groups of 96 SCWL hens in cages. Two diets were formulated from each grain to contain 12.0 and 15.4% crude protein. The diets were designed to make maximum use of the grains. The only protein in the 12.0% triticale and wheat diets was that contained in the grain. Soybean meal was used to balance the other diets. Methionine and lysine were added to provide a minimum of 0.52% methionine plus cystine, and 0.50% lysine. The metabolizable energy of the diets ranged from 2900 to 2950 Cal. per kg. Egg production comparisons were based on the averages of 3 weeks preceeding the 9 week test period and the final 3 weeks.

Egg production at the beginning of the test, averaged 73 to 77% for the 8 groups of hens. At the end of the test, production ranged from 61 to 80%. The kind of grain and the level of protein in the diet influenced egg production.

In the 15.4% protein series, egg production increased 4 to 5% with corn, milo and wheat diets, and decreased 5% with triticale. In the 12.0% protein series, production decreased 13, 10, and 7% respectively with triticale, wheat and milo; and increased 4% with corn. Feed conversion ranged from 2.6 to 3.0 and reflected production rates.

¹Instructor

Egg size increased more with both corn diets and the 15.4% protein wheat and milo diets than with the other feeds. Egg shell thickness decreased with all treatments, but with no significant differences. The highest Haugh unit values (internal egg quality) were associated with the milo diets; the lowest with corn; and intermediate values with triticale.

Losses in body weight, up to 100 grams, were recorded with both triticale diets and the 12.0% protein wheat diets; slight to normal gains were found with the other treatments. Death losses, 3 to 4%, were highest with the milo diets, and from 0 to 1% on other diets.

The hens performed equally well on the 15.4 and 12.0% protein corn diets. The 12.0% protein triticale, wheat, and milo diets did not support egg production comparable to corn, indicating that there may have been other nutritional imbalances or deficiencies.