

Corn Distiller Dried Grains with Solubles for Poultry

-An economical addition to poultry diets

Corn Distiller Dried Grains with Solubles (CDDGs) can contribute energy, protein and phosphorus to poultry diets. Least cost formulation will allow up to 20% CDDGs when the product is priced between \$75 to 110 per ton depending on cost of other ingredients – corn, SBM, supplemental fat, supplemental lysine and dicalcium phosphorus

-High quality product is available

As a source of protein:

Current research indicates that the nutrient quality of CDDGS is much improved over past nutrient listings. Digestible lysine content can be as high as 83% as compared to NRC (Nutrient Requirements for Poultry, 1994) value of 65%.¹

As a source of phosphorus:

CDDGS is quite high in phosphorus (.65-.78%) and research indicates that the phosphorus is at least 65% bioavailable.²

As a source of energy:

Recent research has found a value of 1283 kcal/lb of “true metabolizable energy” (TME) for both turkeys and chickens and an apparent metabolizable energy (AME) content of 1250 kcal/lb. Values of 1300 kcal/lb have been used in feeding trials with turkeys without effect on feed conversion³ and values of 1350 kcal/lb in chicken layer and broiler studies⁴. A minimum suggested metabolizable energy (ME) value of 1250 kcal/lb should be used in feed formulation.

As a source of xanthophylls:

CDDGS contributes to pigmentation of egg yolk and chicken carcasses. Feeding of 10% CDDGS darkened egg yolks within one month of feeding in corn-soybean meal based diets.

-Maximum dietary inclusion levels

Broilers – 10%

Turkeys (grow/finish) – 15%

Chicken Layers – 15%

Higher levels may be used but may require more careful adjustment of amino acid and energy levels

¹ University of Minnesota and University of Illinois

² University of Illinois

³ University of Minnesota and Michigan State University

⁴ University of Georgia

-Keys to CDDGs use in poultry diets

Obtain current analytical information from the source of the material as plants are producing a relative consistent product.

Formulate diets considering amino acid digestibility especially for lysine, cystine, and threonine

Formulate diets using minimums for tryptophan and arginine in addition to lysine, TSAA, and threonine, due to the potentially limiting nature of these amino acids in corn DDGs protein

Lower levels of inclusion should be used in diets of young poultry or when first introduced into the diet.

Consider using a higher ME value than that currently recommended by NRC (1994) which lists a ME value of 1130 kcal/lb for DDGs. As most corn DDGs has a fat content which exceeds 9%, ME for CDDGs should be higher, at least in the range of 1200-1250 kcal/lb.

For more information on DDGS research and utilization of DDGs in poultry diets, visit the University of Minnesota website on DDGs at <http://www.ddgs.umn.edu>

Or contact

Dr. Sally Noll
Department of Animal Science
University of Minnesota
1364 Eckles Ave
St. Paul, MN 55108

612-624-4928
nollx001@umn.edu

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