

Progress Report – January, 2013

Title: The Effects of Diets with Corn Gluten Feed or Corn Distillers Dried Grains on Catfish Performance, Processing Traits, and Production Profitability

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Stated goal: To determine the effects of diets with solvent-extracted distillers dried grains with solubles (SE-DDGS) or corn gluten feed (CGF) on production performance, processing traits, and profitability of channel catfish production.

Background and rationale: Arkansas is third in channel catfish production in the US. Feed cost is one of the main factors affecting profitability and viability of the catfish industry. Using low-cost, alternative feed ingredients without compromising fish performance will reduce feed cost. Prices for DDGS and CGF have become more competitive compared with soybean meal, and DDGS and CGF have not been compared directly in the same study.

Specific objectives:

- 1) Determine growth, survival, feed conversion, processing traits, and proximate composition of the fillet in catfish fed diets with 28 or 32% protein and 20% CGF or SE-DDGS.
- 2) Conduct a partial budget analysis to determine the relative profitability of using the different diets.

Progress: We stocked our feeding trial August 9, 2012. Catfish stockers averaging 28.6 grams initially were stocked at a rate of 75 fish per tank in each of three 1140-liter tanks per diet. Fish were fed once daily to satiation, and subsamples of fish were weighed to track growth and adjust feed rations once every 2-3 weeks. Fish were harvested after 12 weeks. Fish fed diets with 32% protein were larger than those fed diets with 28% protein, and fish fed diets with corn gluten feed were larger than those fed diets with solvent-extracted distillers dried grains with solubles. Survival ranged from 93-98% and was not different among diets. Body composition and economic data are being analyzed to complete study objectives.