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# ABSTRACT

**Doaa Abdel-Fatah Shepl Fouda: Use of Some Corn Processing By-Products in Fish Diets. Unpublished Ph.D. Thesis, Department of Animal Production Faculty of Agriculture Ain Shams University, 2017.**

The present study was conducted to evaluate the effect of partially replacing of Yellow corn (main source of energy) and soybean meal (main source of plant protein) by corn processing by-products such as distiller's dried grains with solubles (DDGS) or Foots on monosix Nile tilapia (*O. niloticus*) fingerlings. Two feeding experiments were carried out using almost isonitrogenous (25% CP) and isoenergetic diets. Yellow corn and Foots were replaced by 0, 20 and 40% of either DDGS or Foots.

Seven hundred and fifty tilapia fingerlings (of 10 ± 0.05 g initial weight) were randomly divided into two experiments. The each experiment contained five different groups with three replicates and 25 fingerlings.

**First experiment**

Feed intake was insignificant decreased (P> 0.05) when yellow corn was replaced by 20 or 40% of DDGS.

The growth performance parameters were decreased insignificantly in all substitution levels of DDGS or Foots. The FCR in the control diets showed the worst values compared to the all substitution levels of DDGS or Foots. The feed costs were decreased when substitute yellow corn by Foots (20% and 40%).

**Second experiment**

Feed intake in which replaced soybean meal by 20% and 40% of either DDGS or Foots showed significant decreased between the control diet and other treatments.

Growth performance parameters were significant decreased with increasing substitution levels of DDGS or Foots. The control diet was the best FCR values followed by $TP_4$ (20% Foots). The feed costs /kg gain were increased by increasing substitution levels of soybean meal by DDGS or Foots, while the best feed cost for producing one kg of fish were obtained from the control followed by $TP_4$ (20% Foots).

The results concluded that the 20% substitution level of DDGS or Foots for yellow corn and soybean meal in Nile tilapia (*O. niloticus*) diets containing 25% CP had no adverse effects on the performances of the fish.