



**EFFECT OF ADDITION THE GERMINATED CORN ON  
THE REPRODUCTIVE PERFORMANCE OF RED AND  
NILE TILAPIA**

By

**Dina Mohamed Lotfy Mohamed**

**B.Sc. Agric. Sci. (Animal production-Fishes). Fac. Agric.,  
Fayoum Univ., 2018**

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**FAYOUM UNIVERSITY**

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**Date : 29 /10 / 2022**

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## ABSTRACT

The present work included two spawning trials to investigate the effect of different levels of germinated maize as a dietary ingredient on spawning efficiency and larval performance of Red tilapia *Oreochromis sp* and Nile tilapia *Oreochromis nilotica*. 60 days as experimental duration for each trial. 60 broodstock of Red tilapia were reared in fiberglass tanks (indoor conditions). Six brood-stock/ tank (2.75 m<sup>3</sup>) with a sex ratio (1 male: 2 females, i.e. 2 males: 4 females) in each tank, the initial average weight of male and female was 194±15 and 195±22 (±SE) g, respectively. The other trial was conducted in a private hatchery. A 10 hapa with dimensions (21m<sup>3</sup>), was used to accomplish this work. Brood-stock was randomly stocked in each hapa with a sex ratio (1 male: 3 females, i.e. 15 males: 45 females in each hapa). The initial average weight of males and females were 194±10g and 185±15 g, respectively. Five experimental diets were formulated and applied on the two experiments as follows: control: brood-stock and fry fed a diet without germinated maize, T1, T2, T3, and T4: fishes were fed diets containing different levels of germinated maize meal (1, 2, 3, and 4% respectively). Statistical analysis showed that fish-fed diets containing 2% sprouted germinated corn were significantly better in growth performance, feeding utilization indicators (HSI, VSI, GSI and condition Factors) and hatching indicators (number of fry produced and survival of larvae) in comparison with other treatments. Besides blood hematological and biochemical parameters, fish that were



fed with dietary germinated corn had the best results compared to control treatment. Thus, it is recommended that the inclusion of 2% seed (T2) as feed additives for broodstock are more useful for improving their growth performance, feed utilization, and reproductive performance.

**Key words:** Germinated maize, tilapia, spawning, blood parameters, biometric indices