

THE EFFECT OF SOME MEDICINAL PLANTS ON REPRODUCTIVE AND PRODUCTIVE PERFORMANCES OF NILE TILAPIA FISH

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Thesis of Doctor of Philosophy
In Agricultural Sciences (Animal Nutrition)

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ABSTRACT

Three trials were conducted on Nile tilapia fish (*Oreochromis niloticus*). The 1st and 2nd trials to evaluate the effect of Garlic or Fenugreek seeds as feed additives at a rate of 0.0, 0.5 and 1.0 % from the total diet on the reproductive performance and body weight of the broodstock. The 3rd trial to evaluate the effect of Garlic as a feed additive at a rate of 0.0, 0.5 and 1.0 % from total diet on growth performance, body chemical composition and feed utilization of monosex fingerlings. The results revealed that;

Spawned female number/week, egg number/fish/week, fry number/fish/week, spawning number/fish/trial period and feed conversion ratio as amount of feed required to produce 1000 fry were improved significantly ($P \leq 0.05$) with Garlic or Fenugreek addition. The highest values were obtained with 0.5 % Garlic or Fenugreek levels followed by 1.0 % and 0.0% levels, respectively.

It could be suggest the use of 0.5 % Garlic or Fenugreek levels in tilapia broodstock diets for better reproductive performance.

Growth performance parameters, body chemical composition, feed utilization, production and economic efficiencies were improved significantly ($P \leq 0.05$) with Garlic diets. The highest values were obtained with 1.0 % dietary Garlic level followed by 0.5 and 0.0% levels, respectively.

It could be suggest the use of 1.0 % Garlic level in tilapia fingerlings diets as growth promoter.

Key words: Nile tilapia, feed additive, Garlic, Fenugreek, reproductive performance, growth performance, feed utilization.