ABSTRACT


The experiment was conducted to determine the effect of dietary ascorbyl phosphate magnesium as a source of vitamin C and implanted with estradiol-17β on the gonad maturation, egg and larva quality of African Catfish Clarias gariepinus. Fish were treated by various combinations of dietary dosage of ascorbyl phosphate magnesium (0, 600, 1200, and 1800 mg/kg of feed) and estradiol-17β (0, 250, and 500 μg/kg). Two hundreds sixteen and eighteen pairs of broodstock fish were used for this experiment. Fish were fed with the experimental diets two times a day at satiation. The gonad somatic index, egg diameter, fecundity, hatching rate of the eggs, survival rate, and percentage of abnormal larvae were determined. Results of the experiment indicated that supplementation of ascorbyl phosphate magnesium and estradiol-17β stimulated gonad development and increased hatching rate, fecundity and survival rate, and reduced percentage of abnormal larvae. Combination of ascorbyl phosphate magnesium 1200 mg/kg feed and estradiol-17β 50 μg/kg gave the best reproductive performance.

Key word: African Catfish Clarias gariepinus, Ascorbyl phosphate magnesium, estradiol-17β, reproduction performance