

STUDIES ON OVER – WINTERING OF NILE TILAPIA (*OREOCHROMIS NILOTICUS*) FRY

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ABSTRACT

Mono and Mixed sex Nile tilapia, *Oreochromis niloticus* fry with an average weight 1g. were evaluated for winter growth performance and survival rate in outdoor earthen and concrete ponds under Egyptian winter condition. Eight earthen ponds were used, each suddoned with siag of dried plants to protect them from the cold wind and also eight concrete ponds which covered with polyethylene sheet where 25% of the surface area were left uncovered to allow aeration.

Experimental period started at 15, September and lasted April 2004. The fish were fed on pelted commercial feed containing 25% crude protein. Two culture methods (Earthen ponds and concrete ponds) within each tilapia mono sex or mixed sex were tested using two different feeding regimes 5 to 1 % or 10 to 2 % of total biomass according to water temperature. Our results can be summarized as follows.

1- Maximum increase in body weight recorded for mixed sex fish in concrete pond (feeding rate 10-2 % of total fish biomass) and minimum for monosex fish in earthen pond (feeding rate 5-1 % of total fish biomass).

2-The highest survival rate and growth performance were recorded at feeding rate 10-2% of body weight in concrete ponds with mixed sex tilapia, followed by group of mixed sex fish fed at feeding rate 5-1 % in concrete pond and group of monosex fish fed at feeding rate 5-1 % in earthen pond, respectively.

3- monosex Nile tilapia produced with hormone treatment (17 α methyl testosterone) had low SGR records under Egyptian winter condition.

In conclusion, on the light of the present knowledge it could be maintain mono se mixed sex tilapia fry in outdoor concrete ponds which covered with polyethylene sheet (Covered 75% only of the surface and completely cover the sides of the concrete ponds) at stocking rate 50 fry /m³ and feeding rate 10-2% of body weight daily by adjusting over – wintering feeding in Egypt.