

B-62: Hatching of tilapia (*Oreochromis niloticus*) eggs under laboratory conditions

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Culturing of tilapia in ponds leads to low yields because of significantly high production of recruits. Even the introduction of predatory fish did not solve over-population. Presently monosex culture is the only available solution. Laboratory production of tilapia postlarvae would help of in the hormonal treatment tilapia from the early fry stage. Objective of this study was to determine whether eggs removed from the mouth of tilapia could be hatched under laboratory conditions.

From the brood fish ponds, 16 male and 24 female mature Nile tilapia were selected. Males and females were separated and stocked in 2 separate spawning ponds and fed a high quality protein diet.

After 2 weeks, they were mixed in the spawning ponds and allowed to breed. The eggs laid were collected and introduced at 100 eggs/0.25 m³ rate. One treatment had aerators while the other treatment did not. Each treatment was triplicated. Number of postlarvae hatched was counted. CRD was the statistical design used.

The hatching percentage were 98 ± 0 and 100 ± 0 in the aerated and non-aerated treatments respectively. However, for large scale production of tilapia Day 1 fry needed for hormonal treatment, techniques for the removal of eggs, hatching in large numbers at lower cost have to be developed. There was no significant difference in the hatchability between the 2 treatments, indicating that even aeration is not mandatory for hatching when the egg number is low.

The results reveal that, it would be possible to develop this technique of obtaining Day 1 fry for mass scale hormonal treatment by removing the fertilized eggs from the mouth of tilapia. Use of hormones such as 17 alpha methyltestosterone for production of all male tilapia population could be effected easily since sufficient Day 1 tilapia fry could be obtained this way.

Financial assistance by CARP through research grant no.12/209/175 is acknowledged.