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RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: Efficacy of common carp (*Cyprinus carpio*) testis on sex reversal of Nile tilapia (*Oreochromis niloticus*) fry

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Abstract: Feeding common carp (*Cyprinus carpio*) testis (CCT) to Nile tilapia during the critical period of sex differentiation caused skewness towards male based on dose dependent manner. Six types of feed containing varied proportion CCT viz.: 0% (Control), 50%, 65%, 80%, 95% and 100% were fed to 9 DAH (days after hatching) tilapia fry for 25, 30 and 35 days. Treatment with CCT and control feed was carried out in 18 glass aquaria of 60cm x 30cm x 45cm while rearing was carried out in 50cm x 50cm x 100cm nylon happas suspended cemented tank up to 160 DAH. There was no significant effect of treatment duration on sex reversal. Highest proportion of male ($95.8 \pm 7.2\%$) was obtained with 100% CCT feed fed for 30-35 days compared to lowest ($62.5 \pm 12.5\%$) obtained with 50% CCT feed fed for 25-30 days excluding the normal sex ratio with 0% CCT feed. Thus, it was concluded that common carp testis can efficiently masculinize Nile tilapia fry when fed for at least 30 days after hatching. Further refinement of testis could be more effective in sex reversal of Nile tilapia which could replace the use of synthetic androgen (17 α -methyltestosterone).

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