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RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: Growth of Control and Androgen-Treated Nile tilapia, *Oreochromis niloticus* (L.), During Treatment, Nursery and Grow-Out Phases in Tropical Fish Ponds

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Abstract: Masculinization of sexually undifferentiated tilapia fry is achieved by oral administration of the androgen 17- α -methyltestosterone (MT). An anabolic response to androgen treatment of tilapia has been reported. Growth of control and MT-treated tilapia was evaluated during consecutive treatment, nursery, and growout phases under conditions approximating commercial, semi-intensive tilapia farms in Central America. *Oreochromis niloticus* (L.) fry were fed a 0 or 60 mg/kg MT diet for 28 days. Growth curves for control and MT-treated fish did not have significantly different slopes. Mean harvest fry weights were similar, averaging 0.1 g/fry for both treatments. Fry were subsequently stocked into 0.2-ha nursery ponds for 94 days growth. Slopes of control and MT-treated fish growth curves were not significantly different. Mean final individual weights did not differ significantly between treatments. Control fish did not deviate significantly from the 1:1 male:female ratio, but MT-treated fish were 97% males. Control male and MT-treated male fingerlings were stocked for grow-out into 0.1-ha organically fertilized earthen ponds. No significant difference in growth was observed between control and MT-treated fish. Mean gross yields after 150 days and mean final individual weights were similar for both treatments.

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