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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Date: 1 December 1994
Publication Number: CRSP Research Report 94-75

Price: The CRSP will not be distributing this publication. Copies may be obtained by writing to the authors.

Abstract: Masculinization of sexually undifferentiated tilapia fry is achieved by oral administration of the androgen 17-a-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 grow-out 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.

This abstract was excerpted from the original paper, which was published in Aquaculture and Fisheries Management 25:613-621, 1994.