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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

Author(s): B. W. Green and D. R. Teichert-Coddington
Department of Fisheries and Allied Aquacultures
Alabama Agricultural Experiment Station
Auburn University, Alabama USA

Date: 16 February 2006

Publication Number: CRSP Research Report 94-A2

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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.

This abstract is excerpted from the original paper, which was in *Aquaculture and Fisheries Management*, 24:613–621.

CRSP RESEARCH REPORTS are published as occasional papers by the Program Management Office, Aquaculture Collaborative Research Support Program, Oregon State University, 418 Snell Hall, Corvallis, Oregon 97331-1643 USA. The Aquaculture CRSP is supported by the US Agency for International Development under CRSP Grant No.: LAG-G-00-96-90015-00. See the website at <pdacrsp.orest.edu>.