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CULTURE OF MIXED-SEX NILE TILAPIA WITH PREDATORY SNAKEHEAD

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Abstract

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ABSTRACT

An experiment was begun in eighteen 200-m² earthen ponds at the Asian Institute of Technology, Thailand, during May and will terminate in October 1999. This experiment will assess the efficiency of snakehead (*Channa striata*) in controlling overpopulation of mixed-sex Nile tilapia (*Oreochromis niloticus*) in ponds. Also, the growth and production characteristics of Nile tilapia in monoculture and polyculture with snakehead will be analyzed. The six treatments were: (A) monoculture of sex-reversed tilapia; (B) monoculture of mixed-sex tilapia; (C) polyculture of mixed-six tilapia and snakehead at 10:1 ratio; (D) polyculture of mixed-six tilapia and snakehead at 20:1 ratio; (E) polyculture of mixed-six tilapia and snakehead at 40:1 ratio; and (F) polyculture of mixed-six tilapia and snakehead at 80:1 ratio. All ponds are fertilized weekly with urea and TSP at rates of 28 kg N and 7 kg P ha⁻¹ wk⁻¹. Sex-reversed all-male and mixed-sex Nile tilapia were stocked at 2 fish m⁻² at sizes of 42.3 ± 1.0 g and 31.0 ± 0.5 g, respectively. Fish growth performance will be evaluated for different treatments. Partial budget analysis will be conducted to estimate input costs and fish value.